FCC Test Report

Report No.:	RFACXM-WTW-P22040515-2
FCC ID:	2AEUPBHASG001
Test Model:	5F48E9
Received Date:	Apr. 14, 2022
Test Date:	Jun. 20 ~ Jul. 05, 2022
Issued Date:	Sep. 16, 2022
Applicant:	Ring LLC
Address:	12515 Cerise Ave, Hawthorne, CA 90250, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
Test Location (2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number (1):	788550 / TW0003
FCC Registration / Designation Number (2):	281270 / TW0032

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFACXM-WTW-P22040515-2	Original release	Sep. 16, 2022

1 Certificate of Conformity

Product:	Amazon Sidewalk Bridge Pro by Ring
Brand:	Ring
Test Model:	5F48E9
Sample Status:	Engineering sample
Applicant:	Ring LLC
Test Date:	Jun. 20 ~ Jul. 05, 2022
Standards:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Polly Chien , **Date:** Sep. 16, 2022

Polly Chien / Specialist

Approved by : Jeremy Lin , **Date:** Sep. 16, 2022

Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(9)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.76dB at 0.39654MHz.
15.407(b) (1/2/3/4(i/ii)/9)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.2dB at 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
3. For U-NII-1, U-NII-2A and U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.79 dB
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~1000MHz	2.93 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Amazon Sidewalk Bridge Pro by Ring
Brand	Ring
Test Model	5F48E9
Sample Status	Engineering sample
Power Supply Rating	53Vdc (from PoE) 6Vdc (from battery)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 12 802.11n (HT40), 802.11ac (VHT40): 6 802.11ac (VHT80): 3 5745 ~ 5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5180 ~ 5240MHz: 105.35mW 5260 ~ 5320MHz: 79.446mW 5500 ~ 5720MHz: 79.897mW 5745 ~ 5825MHz: 107.164mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	Refer to note
Cable Supplied	NA

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function
802.11a	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40/VHT80 on 802.11ac mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT contains following accessory devices.

Product	Brand	Model	Description
PoE	Gospower	G0545-530-060-PSE1000	I/P: 100-240 Vac, 50-60Hz, 0.75 A O/P: 53 Vdc, 0.6 A 1.47m non-shielded cable with 1 core
Battery	WELLTECH ENERGY INC.	5F48E9	Rating: 6Vdc, 3100mAh

3. The EUT contains certified WWAN (LTE) modular which FCC ID: ZMONL668AM00.

4. The EUT uses the following antennas.

RF Chain No.	Type	Connector	Frequency Range	Gain (dBi)	Cable Length (mm)
WiFi 0	Dipole	ipex(MHF)	2.400~2.4835GHz	6.87	145mm
			5.150~5.850GHz	7.89	
WiFi 1	Dipole	ipex(MHF)	2.400~2.4835GHz	7.45	165mm
			5.150~5.850GHz	7.34	
BT	Dipole	ipex(MHF)	2.400~2.4835GHz	5.22	150mm

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

3.2 Description of Test Modes

For 5180 ~ 5240MHz:

4 channels are provided for 802.11a, 802.11n (HT20) and 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40) and 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

For 5260 ~ 5320MHz:

4 channels are provided for 802.11a, 802.11n (HT20) and 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (HT40) and 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

For 5500 ~ 5720MHz:

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz
138	5690 MHz		

For 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20) and 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

2 channels are provided for 802.11n (HT40) and 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission APCM: Antenna Port Conducted Measurement

Note:

1. The EUT is professionally installed.

2. For radiated emission (below 1GHz) and power line conducted emission test items chosen the worst maximum fundamental emission level channel.

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	MCS0
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	MCS0
	802.11ac (VHT80)		42	42	OFDM	MCS0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	MCS0
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	MCS0
	802.11ac (VHT80)		58	58	OFDM	MCS0
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	MCS0
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	MCS0
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	MCS0
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	MCS0
	802.11ac (VHT80)		155	155	OFDM	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11ac (VHT20)	5180-5240	36, 40, 48	149	OFDM	MCS0
		5260-5320	52, 60, 64		OFDM	MCS0
		5500-5720	100 to 144		OFDM	MCS0
		5745-5825	149, 157, 165		OFDM	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11ac (VHT20)	5180-5240	36, 40, 48	149	OFDM	MCS0
		5260-5320	52, 60, 64		OFDM	MCS0
		5500-5720	100 to 144		OFDM	MCS0
		5745-5825	149, 157, 165		OFDM	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

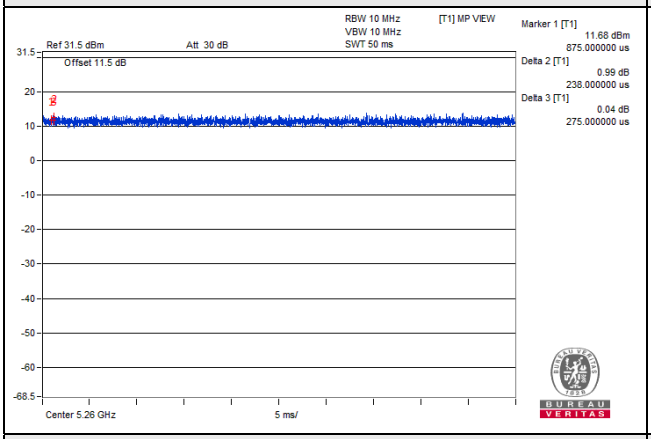
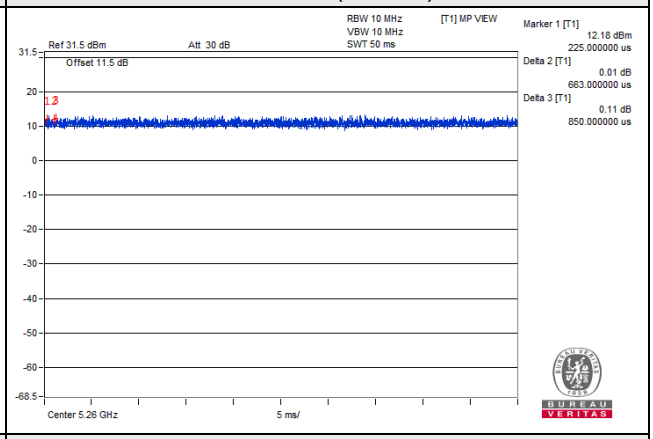
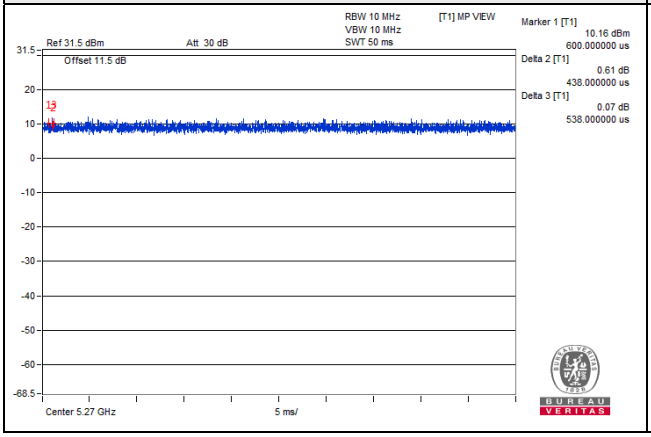
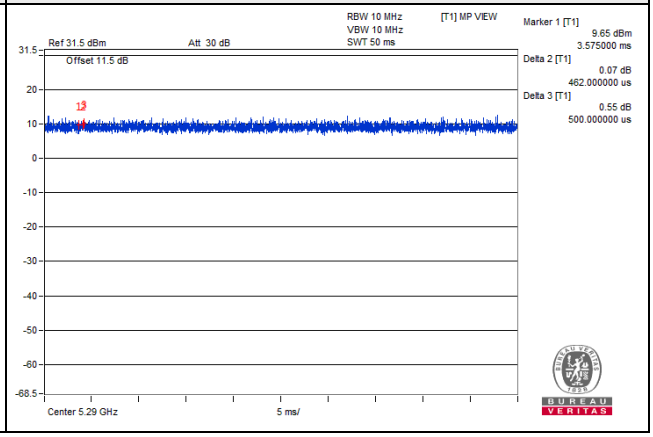
EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	MCS0
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	MCS0
	802.11ac (VHT80)		42	42	OFDM	MCS0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	MCS0
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	MCS0
	802.11ac (VHT80)		58	58	OFDM	MCS0
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	MCS0
	802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	MCS0
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	MCS0
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	MCS0
	802.11ac (VHT80)		155	155	OFDM	MCS0

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65% RH	120Vac, 60Hz	Tim Chen
RE<1G	27 deg. C, 72% RH	120Vac, 60Hz	Randy Wu
PLC	25 deg. C, 75% RH	120Vac, 60Hz	Randy Wu
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Jisyong Wang

3.3 Duty Cycle of Test Signal

Duty cycle is 100 %, duty factor is not required.

802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	**802.11ac (VHT80)**
	

3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

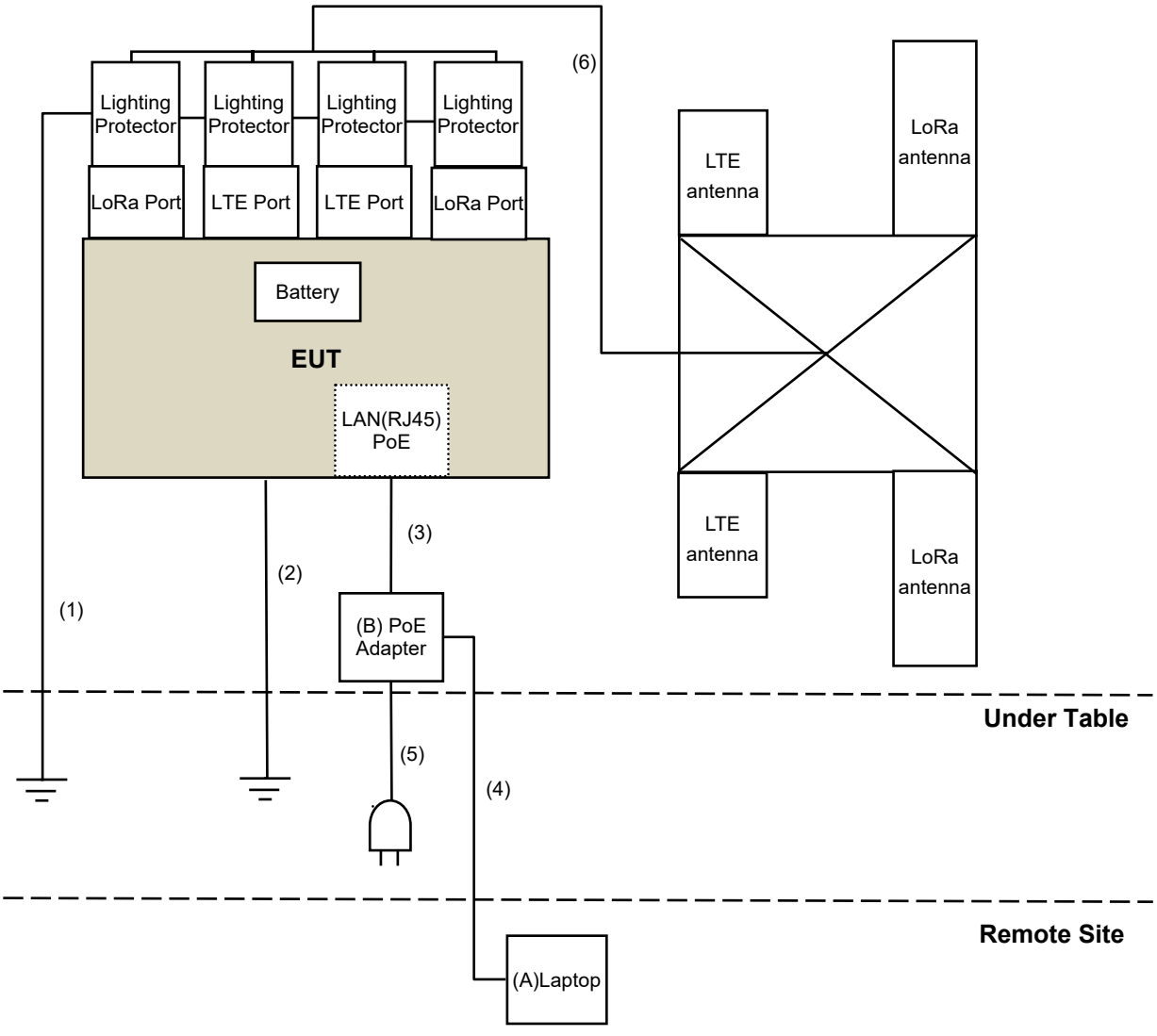
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	Lenovo	80Q7	PF0KUGU6	FCC DoC Approved	Provided by Lab
B.	PoE Adapter	Gospower	G0545-530-060-PSE1000	NA	NA	Supplied by client

Note: All power cords of the above support units are non-shielded (1.8m).

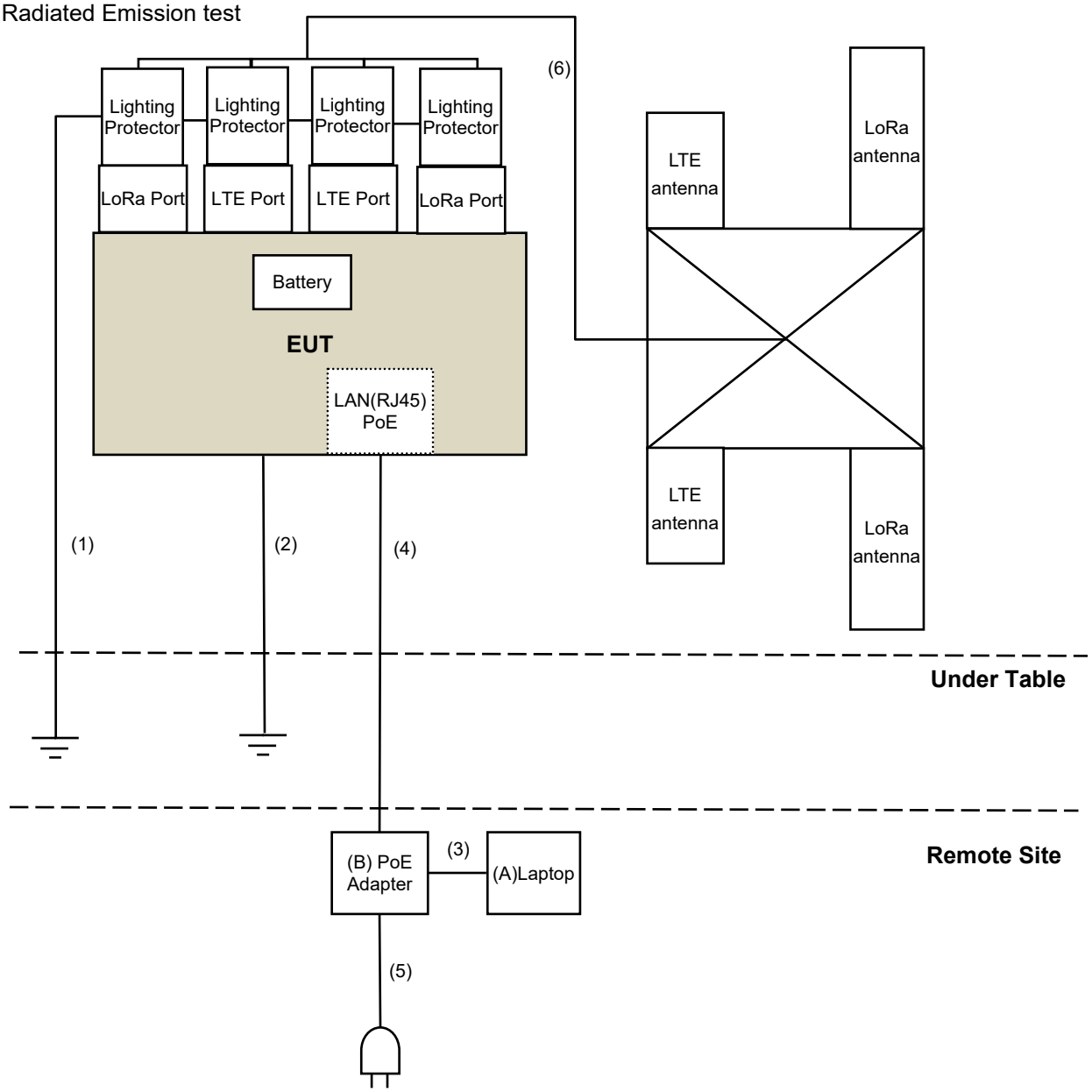
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	GND Cable	1	3	N	0	Provided by Lab
2.	GND Cable	1	3	N	0	Provided by Lab
3.	RJ-45 Cable	1	1.5	N	0	Provided by Lab
4.	RJ-45 Cable	1	10	N	0	Provided by Lab
5.	AC Cable	1	1	N	0	Supplied by applicant
6.	Antenna Cable	4	1	Y	0	Supplied by applicant

3.4.1 Configuration of System under Test

For AC Power Conducted Emission test



For Radiated Emission test



3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

Test standard:
FCC Part 15, Subpart E (15.407)
ANSI C63.10:2013

All test items have been performed and recorded as per the above standards.

References Test Guidance:
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To			Limit	
789033 D02 General UNII Test Procedure New Rules v02r01			Field Strength at 3m	
			PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	Applicable To		EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)		PK: -27 (dBm/MHz)	PK: 68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK: -27 (dBm/MHz) *1 PK: 10 (dBm/MHz) *2 PK: 15.6 (dBm/MHz) *3 PK: 27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK: 105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK: 122.2 (dBμV/m) *4

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\ \sqrt{30\,P}}{3}$$ μV/m, where P is the eirp (Watts).

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Rohde & Schwarz	ESR3	102783	Dec. 21, 2021	Dec. 20, 2022
Spectrum Analyzer KEYSIGHT	N9020B	MY60110513	Dec. 24, 2021	Dec. 23, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-1214	Oct. 27, 2021	Oct. 26, 2022
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1170	Nov. 14, 2021	Nov. 13, 2022
HORN Antenna SCHWARZBECK	BBHA 9170	9170-995	Nov. 14, 2021	Nov. 13, 2022
Loop Antenna EMCI	EM-6879	269	Sep. 16, 2021	Sep. 15, 2022
Loop Antenna TESEQ	HLA 6121	45745	Jul. 21, 2021	Jul. 20, 2022
Preamplifier EMCI	EMC330N	980798	Jan. 17, 2022	Jan. 16, 2023
Preamplifier EMCI	EMC118A45SE	980809	Dec. 30, 2021	Dec. 29, 2022
Preamplifier EMCI	EMC184045SE	980786	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC104-SM-SM-(9000+2000+1000)	201244+ 201232+ 210103	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMCCFD400-NM-NM-(9000+300+500)	201251+ 201249+ 201248	Jan. 17, 2022	Jan. 16, 2023
RF signal cable EMCI	EMC101G-KM-KM-(5000+3000+2000)	201261+201258+201249	Jan. 17, 2022	Jan. 16, 2023
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Max-Full	MF-7802BS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208674	NA	NA
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	Jan. 18, 2022	Jan. 17, 2023
Wideband Power Sensor KEYSIGHT	N1923A	MY58190002	May 06, 2022	May 05, 2023

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in WM Chamber 9.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz. (RBW = 1MHz, VBW = 10Hz)

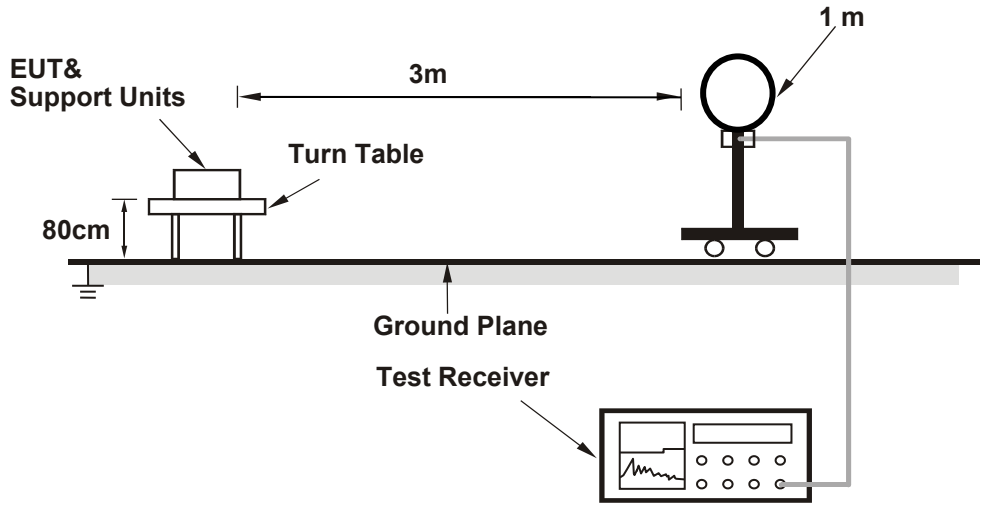
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

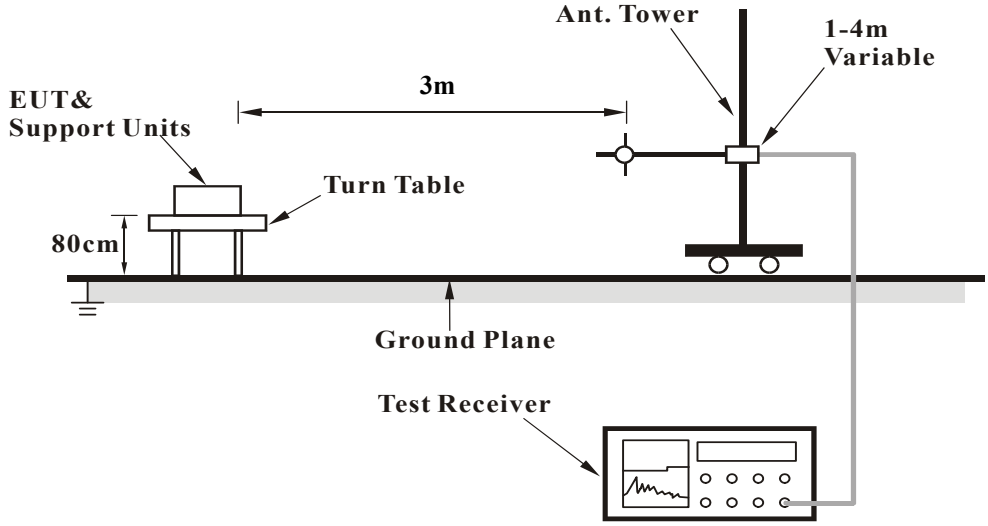
No deviation.

4.1.5 Test Setup

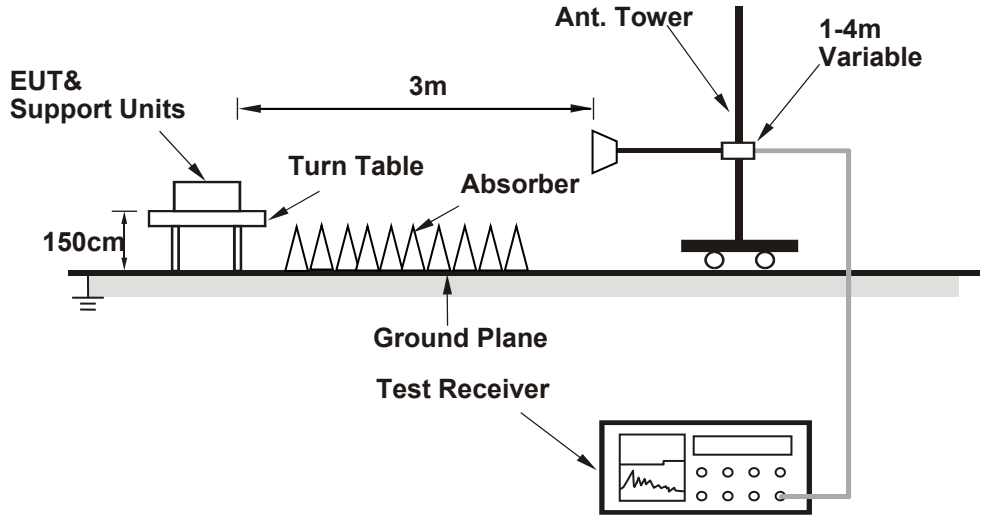
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz data:

RF Mode	TX 802.11a	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.6 PK	74.0	-11.4	1.41 H	339	59.7	2.9
2	5150.00	50.6 AV	54.0	-3.4	1.41 H	339	47.7	2.9
3	*5180.00	113.6 PK			1.41 H	339	73.2	40.4
4	*5180.00	105.0 AV			1.41 H	339	64.6	40.4
5	#10360.00	55.1 PK	68.2	-13.1	1.33 H	333	47.1	8.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.0 PK	74.0	-13.0	3.37 V	338	58.1	2.9
2	5150.00	48.8 AV	54.0	-5.2	3.37 V	338	45.9	2.9
3	*5180.00	115.2 PK			3.37 V	338	74.8	40.4
4	*5180.00	105.7 AV			3.37 V	338	65.3	40.4
5	#10360.00	55.7 PK	68.2	-12.5	1.56 V	331	47.7	8.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	114.6 PK			1.08 H	330	74.3	40.3
2	*5200.00	106.1 AV			1.08 H	330	65.8	40.3
3	#10400.00	55.3 PK	68.2	-12.9	1.06 H	331	47.4	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	114.9 PK			3.25 V	338	74.6	40.3
2	*5200.00	106.2 AV			3.25 V	338	65.9	40.3
3	#10400.00	55.3 PK	68.2	-12.9	3.32 V	333	47.4	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.9 PK	74.0	-15.1	1.38 H	342	56.0	2.9
2	5150.00	46.6 AV	54.0	-7.4	1.38 H	342	43.7	2.9
3	*5240.00	114.8 PK			1.38 H	342	74.6	40.2
4	*5240.00	106.4 AV			1.38 H	342	66.2	40.2
5	#10480.00	55.4 PK	68.2	-12.8	1.32 H	352	47.6	7.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	57.7 PK	74.0	-16.3	2.98 V	338	54.8	2.9
2	5150.00	46.3 AV	54.0	-7.7	2.98 V	338	43.4	2.9
3	*5240.00	115.0 PK			2.98 V	338	74.8	40.2
4	*5240.00	106.4 AV			2.98 V	338	66.2	40.2
5	#10480.00	55.4 PK	68.2	-12.8	3.10 V	325	47.6	7.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.6 PK	74.0	-15.4	1.31 H	343	55.7	2.9
2	5150.00	48.2 AV	54.0	-5.8	1.31 H	343	45.3	2.9
3	*5260.00	115.6 PK			1.31 H	343	75.5	40.1
4	*5260.00	108.1 AV			1.31 H	343	68.0	40.1
5	#10520.00	60.3 PK	68.2	-7.9	1.65 H	23	52.4	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.0 PK	74.0	-16.0	2.92 V	338	55.1	2.9
2	5150.00	48.4 AV	54.0	-5.6	2.92 V	338	45.5	2.9
3	*5260.00	116.2 PK			2.92 V	338	76.1	40.1
4	*5260.00	109.1 AV			2.92 V	338	69.0	40.1
5	#10520.00	59.0 PK	68.2	-9.2	1.55 V	352	51.1	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	115.3 PK			1.10 H	329	75.4	39.9
2	*5300.00	107.7 AV			1.10 H	329	67.8	39.9
3	10600.00	61.8 PK	74.0	-12.2	1.34 H	0	53.7	8.1
4	10600.00	51.8 AV	54.0	-2.2	1.34 H	0	43.7	8.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	115.8 PK			1.44 V	336	75.9	39.9
2	*5300.00	108.6 AV			1.44 V	336	68.7	39.9
3	10600.00	59.3 PK	74.0	-14.7	1.45 V	338	51.2	8.1
4	10600.00	49.4 AV	54.0	-4.6	1.45 V	338	41.3	8.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11a	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	114.8 PK			3.62 H	318	74.9	39.9
2	*5320.00	106.2 AV			3.62 H	318	66.3	39.9
3	5350.00	62.5 PK	74.0	-11.5	3.62 H	318	60.1	2.4
4	5350.00	51.0 AV	54.0	-3.0	3.62 H	318	48.6	2.4
5	10640.00	61.9 PK	74.0	-12.1	1.39 H	360	54.0	7.9
6	10640.00	52.0 AV	54.0	-2.0	1.39 H	360	44.1	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	115.6 PK			1.40 V	337	75.7	39.9
2	*5320.00	108.3 AV			1.40 V	337	68.4	39.9
3	5350.00	66.6 PK	74.0	-7.4	1.40 V	337	64.2	2.4
4	5350.00	52.7 AV	54.0	-1.3	1.40 V	337	50.3	2.4
5	10640.00	59.1 PK	74.0	-14.9	1.42 V	338	51.2	7.9
6	10640.00	49.7 AV	54.0	-4.3	1.42 V	338	41.8	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11a	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.6 PK	74.0	-15.4	3.25 H	308	56.3	2.3
2	5460.00	47.8 AV	54.0	-6.2	3.25 H	308	45.5	2.3
3	#5470.00	62.5 PK	68.2	-5.7	3.25 H	308	60.0	2.5
4	*5500.00	113.8 PK			3.25 H	308	73.7	40.1
5	*5500.00	104.3 AV			3.25 H	308	64.2	40.1
6	11000.00	59.3 PK	74.0	-14.7	1.46 H	328	51.4	7.9
7	11000.00	48.2 AV	54.0	-5.8	1.46 H	328	40.3	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.4 PK	74.0	-12.6	1.31 V	334	59.1	2.3
2	5460.00	49.2 AV	54.0	-4.8	1.31 V	334	46.9	2.3
3	#5470.00	65.8 PK	68.2	-2.4	1.31 V	334	63.3	2.5
4	*5500.00	117.9 PK			1.31 V	334	77.8	40.1
5	*5500.00	108.7 AV			1.31 V	334	68.6	40.1
6	11000.00	60.2 PK	74.0	-13.8	1.40 V	335	52.3	7.9
7	11000.00	48.1 AV	54.0	-5.9	1.40 V	335	40.2	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	114.9 PK			1.43 H	2	74.3	40.6
2	*5580.00	105.2 AV			1.43 H	2	64.6	40.6
3	11160.00	58.1 PK	74.0	-15.9	1.64 H	324	49.5	8.6
4	11160.00	47.6 AV	54.0	-6.4	1.64 H	324	39.0	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	118.5 PK			1.32 V	333	77.9	40.6
2	*5580.00	109.4 AV			1.32 V	333	68.8	40.6
3	11160.00	59.2 PK	74.0	-14.8	1.49 V	330	50.6	8.6
4	11160.00	46.5 AV	54.0	-7.5	1.49 V	330	37.9	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11a	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	113.8 PK			1.64 H	359	72.5	41.3
2	*5700.00	103.9 AV			1.64 H	359	62.6	41.3
3	#5725.00	63.0 PK	68.2	-5.2	1.64 H	359	59.2	3.8
4	11400.00	56.9 PK	74.0	-17.1	1.42 H	335	48.0	8.9
5	11400.00	46.8 AV	54.0	-7.2	1.42 H	335	37.9	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.7 PK			1.54 V	331	75.4	41.3
2	*5700.00	108.2 AV			1.54 V	331	66.9	41.3
3	#5725.00	67.8 PK	68.2	-0.4	1.54 V	331	64.0	3.8
4	11400.00	58.5 PK	74.0	-15.5	1.55 V	326	49.6	8.9
5	11400.00	46.8 AV	54.0	-7.2	1.55 V	326	37.9	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.4 PK	68.2	-9.8	1.43 H	360	55.9	2.5
2	*5720.00	112.8 PK			1.43 H	360	71.4	41.4
3	*5720.00	104.9 AV			1.43 H	360	63.5	41.4
4	#5850.00	59.8 PK	68.2	-8.4	1.43 H	360	55.9	3.9
5	11440.00	56.9 PK	74.0	-17.1	1.31 H	351	47.9	9.0
6	11440.00	46.8 AV	54.0	-7.2	1.31 H	351	37.8	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.0 PK	68.2	-10.2	1.43 V	331	55.5	2.5
2	*5720.00	118.8 PK			1.43 V	331	77.4	41.4
3	*5720.00	109.9 AV			1.43 V	331	68.5	41.4
4	#5850.00	59.2 PK	68.2	-9.0	1.43 V	331	55.3	3.9
5	11440.00	56.4 PK	74.0	-17.6	1.55 V	3	47.4	9.0
6	11440.00	45.7 AV	54.0	-8.3	1.55 V	3	36.7	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.00	56.6 PK	68.2	-11.6	1.49 H	359	53.2	3.4
2	*5745.00	111.7 PK			1.46 H	359	70.2	41.5
3	*5745.00	103.6 AV			1.46 H	359	62.1	41.5
4	#5938.00	58.8 PK	68.2	-9.4	1.46 H	359	54.9	3.9
5	11490.00	56.5 PK	74.0	-17.5	1.41 H	332	47.4	9.1
6	11490.00	45.7 AV	54.0	-8.3	1.41 H	332	36.6	9.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.40	58.4 PK	68.2	-9.8	1.49 V	330	55.0	3.4
2	*5745.00	118.1 PK			1.49 V	330	76.6	41.5
3	*5745.00	109.8 AV			1.49 V	330	68.3	41.5
4	#5951.60	59.1 PK	68.2	-9.1	1.49 V	330	55.1	4.0
5	11490.00	57.0 PK	74.0	-17.0	1.32 V	325	47.9	9.1
6	11490.00	45.8 AV	54.0	-8.2	1.32 V	325	36.7	9.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5643.60	57.2 PK	68.2	-11.0	1.32 H	304	53.8	3.4
2	*5785.00	112.0 PK			1.32 H	304	70.4	41.6
3	*5785.00	103.6 AV			1.32 H	304	62.0	41.6
4	#5956.80	57.9 PK	68.2	-10.3	1.32 H	304	53.8	4.1
5	11570.00	56.3 PK	74.0	-17.7	1.25 H	341	47.1	9.2
6	11570.00	45.8 AV	54.0	-8.2	1.25 H	341	36.6	9.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.80	57.6 PK	68.2	-10.6	1.43 V	331	54.2	3.4
2	*5785.00	117.6 PK			1.43 V	331	76.0	41.6
3	*5785.00	109.1 AV			1.43 V	331	67.5	41.6
4	#5950.80	58.4 PK	68.2	-9.8	1.43 V	331	54.4	4.0
5	11570.00	56.5 PK	74.0	-17.5	1.41 V	332	47.3	9.2
6	11570.00	46.5 AV	54.0	-7.5	1.41 V	332	37.3	9.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.40	57.1 PK	68.2	-11.1	1.42 H	303	53.6	3.5
2	*5825.00	113.5 PK			1.42 H	303	71.9	41.6
3	*5825.00	104.4 AV			1.42 H	303	62.8	41.6
4	#5967.60	58.2 PK	68.2	-10.0	1.42 H	303	54.0	4.2
5	11650.00	55.4 PK	74.0	-18.6	1.32 H	341	46.4	9.0
6	11650.00	45.2 AV	54.0	-8.8	1.32 H	341	36.2	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5637.60	58.2 PK	68.2	-10.0	1.53 V	330	54.8	3.4
2	*5825.00	118.6 PK			1.53 V	330	77.0	41.6
3	*5825.00	109.1 AV			1.53 V	330	67.5	41.6
4	#5948.80	58.7 PK	68.2	-9.5	1.53 V	330	54.7	4.0
5	11650.00	56.5 PK	74.0	-17.5	1.55 V	331	47.5	9.0
6	11650.00	46.2 AV	54.0	-7.8	1.55 V	331	37.2	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 36：5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.6 PK	74.0	-11.4	1.41 H	339	59.7	2.9
2	5150.00	49.5 AV	54.0	-4.5	1.41 H	339	46.6	2.9
3	*5180.00	113.9 PK			1.41 H	339	73.5	40.4
4	*5180.00	105.1 AV			1.41 H	339	64.7	40.4
5	#10360.00	55.3 PK	68.2	-12.9	1.52 H	331	47.3	8.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.1 PK	74.0	-9.9	3.21 V	337	61.2	2.9
2	5150.00	50.6 AV	54.0	-3.4	3.21 V	337	47.7	2.9
3	*5180.00	114.4 PK			3.21 V	337	74.0	40.4
4	*5180.00	105.5 AV			3.21 V	337	65.1	40.4
5	#10360.00	55.5 PK	68.2	-12.7	3.15 V	321	47.5	8.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 40：5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	113.1 PK			1.37 H	340	72.8	40.3
2	*5200.00	105.4 AV			1.37 H	340	65.1	40.3
3	#10400.00	55.2 PK	68.2	-13.0	1.35 H	315	47.3	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	114.6 PK			3.20 V	338	74.3	40.3
2	*5200.00	106.0 AV			3.20 V	338	65.7	40.3
3	#10400.00	55.4 PK	68.2	-12.8	3.36 V	315	47.5	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 48：5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.2 PK	74.0	-15.8	1.36 H	328	55.3	2.9
2	5150.00	45.8 AV	54.0	-8.2	1.36 H	328	42.9	2.9
3	*5240.00	114.3 PK			1.36 H	328	74.1	40.2
4	*5240.00	106.0 AV			1.36 H	328	65.8	40.2
5	#10480.00	54.9 PK	68.2	-13.3	1.45 H	331	47.1	7.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.4 PK	74.0	-15.6	2.93 V	338	55.5	2.9
2	5150.00	46.3 AV	54.0	-7.7	2.93 V	338	43.4	2.9
3	*5240.00	114.8 PK			2.93 V	338	74.6	40.2
4	*5240.00	106.2 AV			2.93 V	338	66.0	40.2
5	#10480.00	55.4 PK	68.2	-12.8	2.85 V	337	47.6	7.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 52：5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.8 PK	74.0	-15.2	1.34 H	330	55.9	2.9
2	5150.00	48.4 AV	54.0	-5.6	1.34 H	330	45.5	2.9
3	*5260.00	116.1 PK			1.34 H	330	76.0	40.1
4	*5260.00	108.0 AV			1.34 H	330	67.9	40.1
5	#10520.00	59.7 PK	68.2	-8.5	1.34 H	360	51.8	7.9
6	#10520.00	50.1 AV	54.0	-3.9	1.34 H	360	42.2	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.0 PK	74.0	-15.0	2.85 V	13	56.1	2.9
2	5150.00	48.7 AV	54.0	-5.3	2.85 V	13	45.8	2.9
3	*5260.00	117.8 PK			2.85 V	13	77.7	40.1
4	*5260.00	110.1 AV			2.85 V	13	70.0	40.1
5	#10520.00	58.0 PK	68.2	-10.2	1.68 V	350	50.1	7.9
6	#10520.00	48.2 AV	54.0	-5.8	1.68 V	350	40.3	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 60：5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	114.2 PK			1.43 H	330	74.3	39.9
2	*5300.00	106.1 AV			1.43 H	330	66.2	39.9
3	10600.00	61.5 PK	74.0	-12.5	1.33 H	360	53.4	8.1
4	10600.00	51.5 AV	54.0	-2.5	1.33 H	360	43.4	8.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	114.8 PK			1.46 V	337	74.9	39.9
2	*5300.00	108.0 AV			1.46 V	337	68.1	39.9
3	10600.00	59.6 PK	74.0	-14.4	1.53 V	338	51.5	8.1
4	10600.00	49.1 AV	54.0	-4.9	1.53 V	338	41.0	8.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 64：5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	113.0 PK			1.51 H	319	73.1	39.9
2	*5320.00	104.9 AV			1.51 H	319	65.0	39.9
3	5350.00	60.2 PK	74.0	-13.8	1.51 H	319	57.8	2.4
4	5350.00	50.1 AV	54.0	-3.9	1.51 H	319	47.7	2.4
5	10640.00	61.6 PK	74.0	-12.4	1.34 H	355	53.7	7.9
6	10640.00	50.2 AV	54.0	-3.8	1.34 H	355	42.3	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	113.8 PK			1.44 V	336	73.9	39.9
2	*5320.00	106.9 AV			1.44 V	336	67.0	39.9
3	5350.00	62.2 PK	74.0	-11.8	1.44 V	336	59.8	2.4
4	5350.00	52.5 AV	54.0	-1.5	1.44 V	336	50.1	2.4
5	10640.00	59.0 PK	74.0	-15.0	1.65 V	342	51.1	7.9
6	10640.00	48.2 AV	54.0	-5.8	1.65 V	342	40.3	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 100：5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.9 PK	74.0	-16.1	1.24 H	333	55.6	2.3
2	5460.00	46.3 AV	54.0	-7.7	1.24 H	333	44.0	2.3
3	#5470.00	61.3 PK	68.2	-6.9	1.24 H	333	58.8	2.5
4	*5500.00	112.1 PK			1.24 H	333	72.0	40.1
5	*5500.00	102.7 AV			1.24 H	333	62.6	40.1
6	11000.00	59.6 PK	74.0	-14.4	1.50 H	329	51.7	7.9
7	11000.00	47.6 AV	54.0	-6.4	1.50 H	329	39.7	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.9 PK	74.0	-13.1	1.32 V	333	58.6	2.3
2	5460.00	49.4 AV	54.0	-4.6	1.32 V	333	47.1	2.3
3	**#5470.00**	**68.0 PK**	**68.2**	**-0.2**	**1.32 V**	**333**	**65.5**	**2.5**
4	*5500.00	117.3 PK			1.32 V	333	77.2	40.1
5	*5500.00	108.4 AV			1.32 V	333	68.3	40.1
6	11000.00	58.7 PK	74.0	-15.3	1.53 V	330	50.8	7.9
7	11000.00	46.6 AV	54.0	-7.4	1.53 V	330	38.7	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 116：5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	113.7 PK			1.43 H	3	73.1	40.6
2	*5580.00	103.7 AV			1.43 H	3	63.1	40.6
3	11160.00	57.4 PK	74.0	-16.6	1.63 H	332	48.8	8.6
4	11160.00	57.2 PK	74.0	-16.8	1.63 H	325	48.6	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.3 PK			1.37 V	333	75.7	40.6
2	*5580.00	107.8 AV			1.37 V	333	67.2	40.6
3	11160.00	57.4 PK	74.0	-16.6	1.63 V	332	48.8	8.6
4	11160.00	45.1 AV	54.0	-8.9	1.63 V	332	36.5	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 140：5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.7 PK			1.49 H	360	70.4	41.3
2	*5700.00	103.3 AV			1.49 H	360	62.0	41.3
3	#5725.00	64.9 PK	68.2	-3.3	1.49 H	360	61.1	3.8
4	11400.00	56.1 PK	74.0	-17.9	1.36 H	321	47.2	8.9
5	11400.00	45.4 AV	54.0	-8.6	1.36 H	321	36.5	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	117.9 PK			1.40 V	332	76.6	41.3
2	*5700.00	109.0 AV			1.40 V	332	67.7	41.3
3	#5725.00	66.8 PK	68.2	-1.4	1.40 V	332	63.0	3.8
4	11400.00	56.3 PK	74.0	-17.7	1.59 V	345	47.4	8.9
5	11400.00	45.6 AV	54.0	-8.4	1.59 V	345	36.7	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 144：5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	1.47 H	1	55.3	2.5
2	*5720.00	112.1 PK			1.47 H	1	70.7	41.4
3	*5720.00	104.0 AV			1.47 H	1	62.6	41.4
4	#5850.00	59.1 PK	68.2	-9.1	1.47 H	1	55.2	3.9
5	11440.00	56.5 PK	74.0	-17.5	1.33 H	360	47.5	9.0
6	11440.00	46.7 AV	54.0	-7.3	1.33 H	360	37.7	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	58.2 PK	68.2	-10.0	1.55 V	332	55.7	2.5
2	*5720.00	118.2 PK			1.55 V	332	76.8	41.4
3	*5720.00	109.7 AV			1.55 V	332	68.3	41.4
4	#5850.00	59.4 PK	68.2	-8.8	1.55 V	332	55.5	3.9
5	11440.00	55.8 PK	74.0	-18.2	1.33 V	352	46.8	9.0
6	11440.00	46.0 AV	54.0	-8.0	1.33 V	352	37.0	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 149：5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5624.80	58.5 PK	68.2	-9.7	1.47 H	359	55.2	3.3
2	*5745.00	112.0 PK			1.47 H	359	70.5	41.5
3	*5745.00	103.0 AV			1.47 H	359	61.5	41.5
4	#5964.80	59.5 PK	68.2	-8.7	1.47 H	359	55.3	4.2
5	11490.00	55.4 PK	74.0	-18.6	1.36 H	341	46.3	9.1
6	11490.00	45.2 AV	54.0	-8.8	1.36 H	341	36.1	9.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5642.00	58.2 PK	68.2	-10.0	1.46 V	332	54.8	3.4
2	*5745.00	118.9 PK			1.46 V	332	77.4	41.5
3	*5745.00	109.8 AV			1.46 V	332	68.3	41.5
4	#5932.40	58.4 PK	68.2	-9.8	1.46 V	332	54.4	4.0
5	11490.00	56.5 PK	74.0	-17.5	1.34 V	331	47.4	9.1
6	11490.00	46.6 AV	54.0	-7.4	1.34 V	331	37.5	9.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 157：5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5624.80	57.3 PK	68.2	-10.9	1.40 H	302	54.0	3.3
2	*5785.00	112.0 PK			1.40 H	302	70.5	41.6
3	*5785.00	103.3 AV			1.40 H	302	61.7	41.6
4	#5940.00	57.8 PK	68.2	-10.4	1.40 H	302	53.9	3.9
5	11590.00	56.2 PK	74.0	-17.8	1.45 H	345	47.1	9.2
6	11590.00	45.9 AV	54.0	-8.1	1.45 H	345	36.8	9.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.40	57.6 PK	68.2	-10.6	1.45 V	331	54.2	3.4
2	*5785.00	117.5 PK			1.45 V	331	75.9	41.6
3	*5785.00	108.8 AV			1.45 V	331	67.2	41.6
4	#5931.60	58.2 PK	68.2	-10.0	1.45 V	331	54.2	4.0
5	11570.00	56.7 PK	74.0	-17.3	1.34 V	325	47.6	9.1
6	11570.00	46.6 AV	54.0	-7.4	1.34 V	325	37.4	9.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT20)	Channel	CH 165：5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5607.60	57.6 PK	68.2	-10.6	1.41 H	303	54.4	3.2
2	*5825.00	113.8 PK			1.41 H	303	72.2	41.6
3	*5825.00	104.5 AV			1.41 H	303	63.0	41.6
4	#5971.20	58.4 PK	68.2	-9.8	1.41 H	303	54.2	4.2
5	11650.00	55.5 PK	74.0	-18.5	1.41 H	310	46.5	9.0
6	11650.00	45.4 AV	54.0	-8.6	1.41 H	310	36.4	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5635.20	58.2 PK	68.2	-10.0	1.45 V	331	54.8	3.4
2	*5825.00	117.3 PK			1.45 V	331	75.7	41.6
3	*5825.00	108.9 AV			1.45 V	331	67.4	41.6
4	#5952.00	59.8 PK	68.2	-8.4	1.45 V	331	55.8	4.0
5	11650.00	56.4 PK	74.0	-17.6	1.43 V	335	47.4	9.0
6	11650.00	46.3 AV	54.0	-7.7	1.43 V	335	37.3	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 38：5190 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.8 PK	74.0	-10.2	1.37 H	338	60.9	2.9
2	5150.00	50.9 AV	54.0	-3.1	1.37 H	338	48.0	2.9
3	*5190.00	110.5 PK			1.37 H	338	70.2	40.3
4	*5190.00	101.3 AV			1.37 H	338	61.0	40.3
5	#10380.00	55.0 PK	68.2	-13.2	1.52 H	334	47.1	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	63.9 PK	74.0	-10.1	3.14 V	337	61.0	2.9
2	5150.00	51.8 AV	54.0	-2.2	3.14 V	337	48.9	2.9
3	*5190.00	110.7 PK			3.14 V	337	70.4	40.3
4	*5190.00	101.7 AV			3.14 V	337	61.4	40.3
5	#10380.00	55.2 PK	68.2	-13.0	3.15 V	320	47.3	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 46：5230 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	1.43 H	339	57.0	2.9
2	5150.00	47.6 AV	54.0	-6.4	1.43 H	339	44.7	2.9
3	*5230.00	111.6 PK			1.43 H	339	71.4	40.2
4	*5230.00	103.1 AV			1.43 H	339	62.9	40.2
5	#10460.00	54.9 PK	68.2	-13.3	1.64 H	314	47.1	7.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.0 PK	74.0	-14.0	2.98 V	339	57.1	2.9
2	5150.00	47.9 AV	54.0	-6.1	2.98 V	339	45.0	2.9
3	*5230.00	112.1 PK			2.98 V	339	71.9	40.2
4	*5230.00	103.3 AV			2.98 V	339	63.1	40.2
5	#10460.00	55.4 PK	68.2	-12.8	2.87 V	346	47.6	7.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 54：5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	113.7 PK			1.18 H	328	73.6	40.1
2	*5270.00	104.6 AV			1.18 H	328	64.5	40.1
3	5350.00	59.9 PK	74.0	-14.1	1.18 H	328	57.5	2.4
4	5350.00	49.1 AV	54.0	-4.9	1.18 H	328	46.7	2.4
5	#10540.00	55.4 PK	68.2	-12.8	1.49 H	16	47.5	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	114.4 PK			1.48 V	336	74.3	40.1
2	*5270.00	105.8 AV			1.48 V	336	65.7	40.1
3	5350.00	62.7 PK	74.0	-11.3	1.48 V	336	60.3	2.4
4	5350.00	49.5 AV	54.0	-4.5	1.48 V	336	47.1	2.4
5	#10540.00	58.8 PK	68.2	-9.4	1.13 V	351	50.9	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 62：5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	110.8 PK			1.48 H	318	70.9	39.9
2	*5310.00	100.9 AV			1.48 H	318	61.0	39.9
3	5350.00	60.7 PK	74.0	-13.3	1.48 H	318	58.3	2.4
4	5350.00	49.9 AV	54.0	-4.1	1.48 H	318	47.5	2.4
5	10620.00	57.8 PK	74.0	-16.2	1.38 H	359	49.8	8.0
6	10620.00	47.3 AV	54.0	-6.7	1.38 H	359	39.3	8.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	112.5 PK			1.49 V	336	72.6	39.9
2	*5310.00	103.3 AV			1.49 V	336	63.4	39.9
3	5350.00	67.1 PK	74.0	-6.9	1.49 V	336	64.7	2.4
4	5350.00	53.0 AV	54.0	-1.0	1.49 V	336	50.6	2.4
5	10620.00	56.4 PK	74.0	-17.6	1.64 V	341	48.4	8.0
6	10620.00	46.7 AV	54.0	-7.3	1.64 V	341	38.7	8.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 102：5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.3 PK	74.0	-15.7	1.29 H	332	56.0	2.3
2	5460.00	46.3 AV	54.0	-7.7	1.29 H	332	44.0	2.3
3	#5470.00	62.2 PK	68.2	-6.0	1.29 H	332	59.7	2.5
4	*5510.00	107.9 PK			1.29 H	332	67.7	40.2
5	*5510.00	99.2 AV			1.29 H	332	59.0	40.2
6	11020.00	56.7 PK	74.0	-17.3	1.44 H	350	48.8	7.9
7	11020.00	45.2 AV	54.0	-8.8	1.44 H	350	37.3	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	61.9 PK	74.0	-12.1	1.30 V	333	59.6	2.3
2	5460.00	49.8 AV	54.0	-4.2	1.30 V	333	47.5	2.3
3	**#5470.00**	**68.0 PK**	**68.2**	**-0.2**	**1.30 V**	**333**	**65.5**	**2.5**
4	*5510.00	112.9 PK			1.30 V	333	72.7	40.2
5	*5510.00	104.6 AV			1.30 V	333	64.4	40.2
6	11020.00	55.1 PK	74.0	-18.9	1.58 V	330	47.2	7.9
7	11020.00	44.6 AV	54.0	-9.4	1.58 V	330	36.7	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 110：5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	109.7 PK			1.27 H	331	69.2	40.5
2	*5550.00	101.2 AV			1.27 H	331	60.7	40.5
3	11100.00	56.3 PK	74.0	-17.7	1.47 H	348	47.9	8.4
4	11100.00	45.4 AV	54.0	-8.6	1.47 H	348	37.0	8.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	112.7 PK			1.30 V	332	72.2	40.5
2	*5550.00	104.5 AV			1.30 V	332	64.0	40.5
3	11100.00	55.4 PK	74.0	-18.6	1.46 V	342	47.0	8.4
4	11100.00	44.9 AV	54.0	-9.1	1.46 V	342	36.5	8.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 134：5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	109.5 PK			1.33 H	2	68.2	41.3
2	*5670.00	100.9 AV			1.33 H	2	59.6	41.3
3	#5725.00	60.7 PK	68.2	-7.5	1.33 H	2	56.9	3.8
4	11340.00	55.8 PK	74.0	-18.2	1.49 H	354	46.9	8.9
5	11340.00	45.5 AV	54.0	-8.5	1.49 H	354	36.6	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	113.7 PK			1.46 V	331	72.4	41.3
2	*5670.00	105.7 AV			1.46 V	331	64.4	41.3
3	#5725.00	67.1 PK	68.2	-1.1	1.46 V	331	63.3	3.8
4	11340.00	54.8 PK	74.0	-19.2	1.32 V	325	45.9	8.9
5	11340.00	45.5 AV	54.0	-8.5	1.32 V	325	36.6	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 142：5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.9 PK	68.2	-10.3	1.39 H	2	55.4	2.5
2	*5710.00	109.4 PK			1.39 H	2	68.1	41.3
3	*5710.00	100.8 AV			1.39 H	2	59.5	41.3
4	#5850.00	59.1 PK	68.2	-9.1	1.39 H	2	55.2	3.9
5	11420.00	56.3 PK	74.0	-17.7	1.44 H	332	47.3	9.0
6	11420.00	46.2 AV	54.0	-7.8	1.44 H	332	37.2	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.8 PK	68.2	-10.4	1.47 V	331	55.3	2.5
2	*5710.00	114.3 PK			1.47 V	331	73.0	41.3
3	*5710.00	106.5 AV			1.47 V	331	65.2	41.3
4	#5850.00	59.6 PK	68.2	-8.6	1.47 V	331	55.7	3.9
5	11420.00	56.2 PK	74.0	-17.8	1.18 V	334	47.2	9.0
6	11420.00	45.6 AV	54.0	-8.4	1.18 V	334	36.6	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 151：5755 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.40	57.4 PK	68.2	-10.8	1.54 H	300	54.1	3.3
2	*5755.00	108.9 PK			1.54 H	300	67.3	41.6
3	*5755.00	99.8 AV			1.54 H	300	58.2	41.6
4	#5929.20	58.1 PK	68.2	-10.1	1.54 H	300	54.1	4.0
5	11510.00	55.7 PK	74.0	-18.3	1.42 H	331	46.6	9.1
6	11510.00	45.8 AV	54.0	-8.2	1.42 H	331	36.7	9.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5645.60	59.4 PK	68.2	-8.8	1.56 V	331	56.0	3.4
2	*5755.00	116.0 PK			1.56 V	331	74.4	41.6
3	*5755.00	106.4 AV			1.56 V	331	64.8	41.6
4	#5941.60	58.8 PK	68.2	-9.4	1.56 V	331	54.9	3.9
5	11510.00	56.3 PK	74.0	-17.7	1.34 V	332	47.2	9.1
6	11510.00	46.5 AV	54.0	-7.5	1.34 V	332	37.4	9.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT40)	Channel	CH 159：5795 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5623.60	58.4 PK	68.2	-9.8	1.43 H	303	55.1	3.3
2	*5795.00	110.1 PK			1.43 H	303	68.5	41.6
3	*5795.00	101.5 AV			1.43 H	303	59.9	41.6
4	#5928.40	59.1 PK	68.2	-9.1	1.43 H	303	55.1	4.0
5	11590.00	55.9 PK	74.0	-18.1	1.41 H	314	46.8	9.1
6	11590.00	45.5 AV	54.0	-8.5	1.41 H	314	36.4	9.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5641.20	58.1 PK	68.2	-10.1	1.47 V	330	54.7	3.4
2	*5795.00	115.2 PK			1.47 V	330	73.6	41.6
3	*5795.00	105.8 AV			1.47 V	330	64.2	41.6
4	#5968.80	58.1 PK	68.2	-10.1	1.47 V	330	53.9	4.2
5	11590.00	56.6 PK	74.0	-17.4	1.42 V	314	47.5	9.1
6	11590.00	46.4 AV	54.0	-7.6	1.42 V	314	37.3	9.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 42：5210 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.4 PK	74.0	-11.6	1.23 H	328	59.5	2.9
2	5150.00	51.0 AV	54.0	-3.0	1.23 H	328	48.1	2.9
3	*5210.00	106.9 PK			1.23 H	328	66.6	40.3
4	*5210.00	98.3 AV			1.23 H	328	58.0	40.3
5	#10420.00	55.2 PK	68.2	-13.0	1.33 H	322	47.3	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.6 PK	74.0	-11.4	3.21 V	339	59.7	2.9
2	5150.00	53.7 AV	54.0	-0.3	3.21 V	339	50.8	2.9
3	*5210.00	108.5 PK			3.21 V	339	68.2	40.3
4	*5210.00	100.1 AV			3.21 V	339	59.8	40.3
5	#10420.00	55.5 PK	68.2	-12.7	3.14 V	321	47.6	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 58：5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	104.2 PK			1.37 H	325	64.3	39.9
2	*5290.00	95.5 AV			1.37 H	325	55.6	39.9
3	5350.00	61.0 PK	74.0	-13.0	1.37 H	325	58.6	2.4
4	5350.00	49.2 AV	54.0	-4.8	1.37 H	325	46.8	2.4
5	#10580.00	55.9 PK	68.2	-12.3	1.69 H	315	48.0	7.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	106.3 PK			1.37 V	336	66.4	39.9
2	*5290.00	96.4 AV			1.37 V	336	56.5	39.9
3	5350.00	62.8 PK	74.0	-11.2	1.37 V	336	60.4	2.4
4	5350.00	52.9 AV	54.0	-1.1	1.37 V	336	50.5	2.4
5	#10580.00	56.5 PK	68.2	-11.7	1.34 V	342	48.6	7.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 106：5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.9 PK	74.0	-13.1	1.22 H	333	58.6	2.3
2	5460.00	49.6 AV	54.0	-4.4	1.22 H	333	47.3	2.3
3	#5470.00	63.4 PK	68.2	-4.8	1.22 H	333	60.9	2.5
4	*5530.00	102.8 PK			1.22 H	333	62.5	40.3
5	*5530.00	93.9 AV			1.22 H	333	53.6	40.3
6	11060.00	56.6 PK	74.0	-17.4	1.38 H	332	48.5	8.1
7	11060.00	44.0 AV	54.0	-10.0	1.38 H	332	35.9	8.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	66.3 PK	74.0	-7.7	1.18 V	333	64.0	2.3
2	5460.00	53.2 AV	54.0	-0.8	1.18 V	333	50.9	2.3
3	#5470.00	67.2 PK	68.2	-1.0	1.18 V	333	64.7	2.5
4	*5530.00	110.1 PK			1.18 V	333	69.8	40.3
5	*5530.00	101.2 AV			1.18 V	333	60.9	40.3
6	11060.00	54.4 PK	74.0	-19.6	1.52 V	330	46.3	8.1
7	11060.00	44.2 AV	54.0	-9.8	1.52 V	330	36.1	8.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 122：5610 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	106.7 PK			1.29 H	332	65.8	40.9
2	*5610.00	98.4 AV			1.29 H	332	57.5	40.9
3	#5725.00	58.9 PK	68.2	-9.3	1.29 H	332	55.1	3.8
4	11220.00	56.0 PK	74.0	-18.0	1.52 H	332	47.4	8.6
5	11220.00	45.1 AV	54.0	-8.9	1.52 H	332	36.5	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	110.5 PK			1.46 V	331	69.6	40.9
2	*5610.00	102.1 AV			1.46 V	331	61.2	40.9
3	#5725.00	64.2 PK	68.2	-4.0	1.46 V	331	60.4	3.8
4	11220.00	55.9 PK	74.0	-18.1	1.47 V	338	47.3	8.6
5	11220.00	44.9 AV	54.0	-9.1	1.47 V	338	36.3	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 138：5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.9 PK	68.2	-10.3	1.48 H	359	55.4	2.5
2	*5690.00	105.8 PK			1.48 H	359	64.5	41.3
3	*5690.00	97.7 AV			1.48 H	359	56.4	41.3
4	#5850.00	59.5 PK	68.2	-8.7	1.48 H	359	55.6	3.9
5	11380.00	56.4 PK	74.0	-17.6	1.49 H	336	47.4	9.0
6	11380.00	46.4 AV	54.0	-7.6	1.49 H	336	37.4	9.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	57.9 PK	68.2	-10.3	1.37 V	332	55.4	2.5
2	*5690.00	111.1 PK			1.37 V	332	69.8	41.3
3	*5690.00	102.8 AV			1.37 V	332	61.5	41.3
4	#5850.00	59.3 PK	68.2	-8.9	1.37 V	332	55.4	3.9
5	11380.00	56.3 PK	74.0	-17.7	1.64 V	321	47.3	9.0
6	11380.00	46.2 AV	54.0	-7.8	1.64 V	321	37.2	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ac (VHT80)	Channel	CH 155：5775 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.40	58.6 PK	68.2	-9.6	1.40 H	305	55.2	3.4
2	*5775.00	105.8 PK			1.40 H	305	64.3	41.5
3	*5775.00	97.3 AV			1.40 H	305	55.8	41.5
4	#5944.40	58.9 PK	68.2	-9.3	1.40 H	305	55.0	3.9
5	11550.00	55.7 PK	74.0	-18.3	1.34 H	310	46.5	9.2
6	11550.00	45.5 AV	54.0	-8.5	1.34 H	310	36.3	9.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5618.00	60.1 PK	68.2	-8.1	1.45 V	331	56.8	3.3
2	*5775.00	111.2 PK			1.45 V	331	69.7	41.5
3	*5775.00	102.7 AV			1.45 V	331	61.2	41.5
4	#5932.00	57.8 PK	68.2	-10.4	1.45 V	331	53.8	4.0
5	11550.00	56.6 PK	74.0	-17.4	1.34 V	331	47.4	9.2
6	11550.00	46.4 AV	54.0	-7.6	1.34 V	331	37.2	9.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

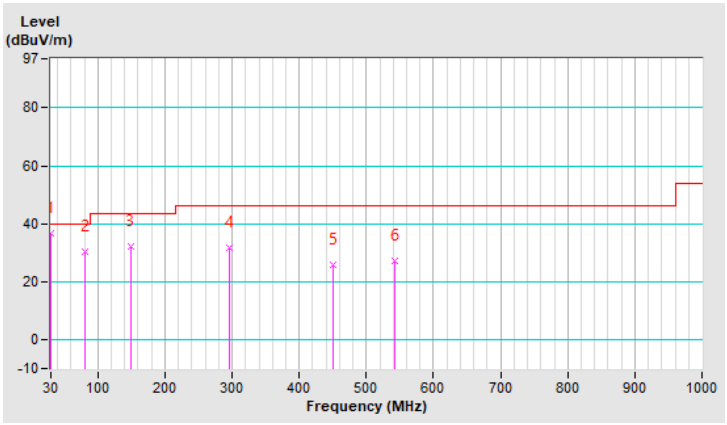
Below 1GHz Worst-Case Data:

RF Mode	TX 802.11ac (VHT20)	Channel	CH 149：5745 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.00	36.9 QP	40.0	-3.1	1.99 H	127	51.3	-14.4
2	80.40	30.4 QP	40.0	-9.6	1.49 H	182	48.6	-18.1
3	148.30	32.3 QP	43.5	-11.2	1.00 H	63	45.4	-13.2
4	296.80	31.7 QP	46.0	-14.3	1.49 H	232	44.2	-12.5
5	450.00	25.9 QP	46.0	-20.1	1.00 H	8	34.5	-8.6
6	542.20	27.2 QP	46.0	-18.8	1.49 H	117	34.3	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

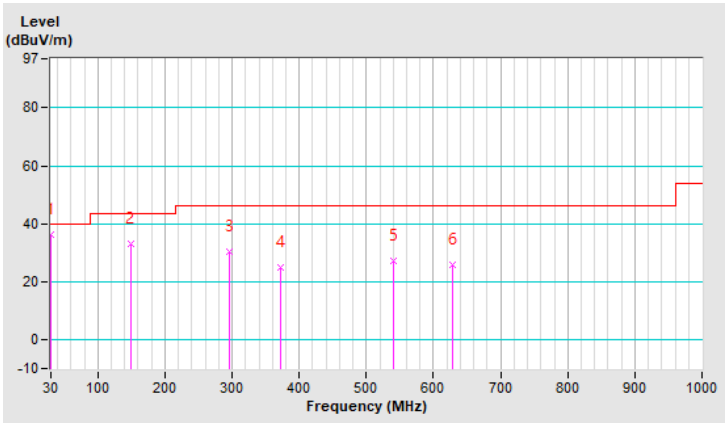


RF Mode	TX 802.11ac (VHT20)	Channel	CH 149：5745 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.00	36.1 QP	40.0	-3.9	2.00 V	146	50.5	-14.4
2	148.30	33.0 QP	43.5	-10.5	1.01 V	84	46.1	-13.2
3	296.80	30.3 QP	46.0	-15.7	2.00 V	224	42.8	-12.5
4	371.40	25.0 QP	46.0	-21.0	1.51 V	2	35.6	-10.6
5	540.20	27.3 QP	46.0	-18.7	1.51 V	124	34.5	-7.1
6	627.50	25.8 QP	46.0	-20.2	1.51 V	152	30.8	-5.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Jan. 22, 2022	Jan. 21, 2023
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2021	Sep. 03, 2022
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Feb. 17, 2022	Feb. 16, 2023
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Sep. 17, 2021	Sep. 16, 2022
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.
4. Tested date: Jul. 02, 2022

4.2.3 Test Procedures

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

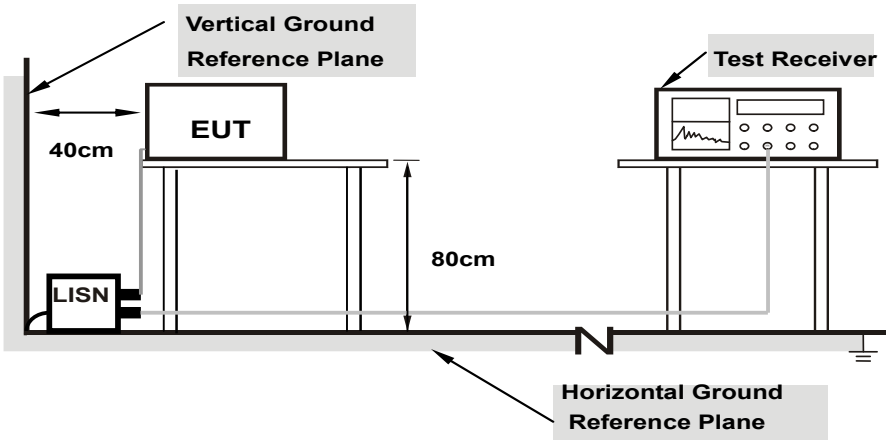
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data:

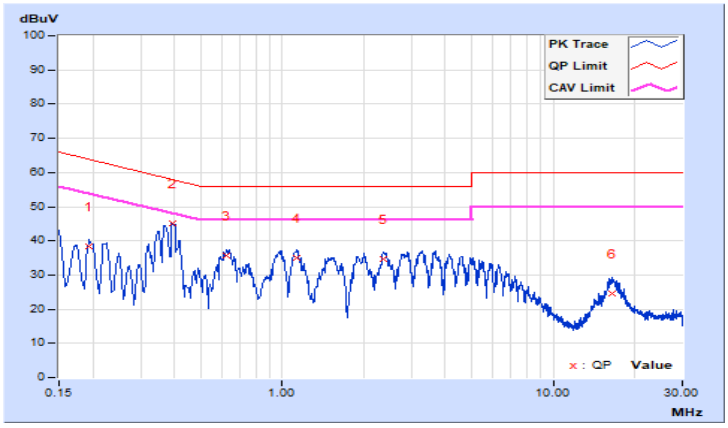
802.11ac (VHT20)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19400	10.14	28.32	23.92	38.46	34.06	63.86	53.86	-25.40	-19.80
2	0.39238	10.16	34.79	30.61	44.95	40.77	58.01	48.01	-13.06	-7.24
3	0.62221	10.17	25.49	19.71	35.66	29.88	56.00	46.00	-20.34	-16.12
4	1.13800	10.19	24.68	16.06	34.87	26.25	56.00	46.00	-21.13	-19.75
5	2.35800	10.23	24.44	15.72	34.67	25.95	56.00	46.00	-21.33	-20.05
6	16.53800	10.35	14.16	9.00	24.51	19.35	60.00	50.00	-35.49	-30.65

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

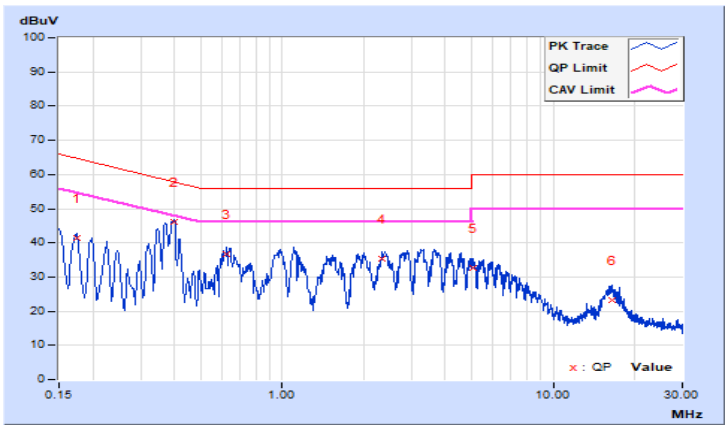


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17400	10.14	31.38	28.97	41.52	39.11	64.77	54.77	-23.25	-15.66
2	**0.39654**	**10.17**	**36.05**	**33.00**	**46.22**	**43.17**	**57.93**	**47.93**	**-11.71**	**-4.76**
3	0.62600	10.18	26.54	17.86	36.72	28.04	56.00	46.00	-19.28	-17.96
4	2.33800	10.24	25.10	16.28	35.34	26.52	56.00	46.00	-20.66	-19.48
5	5.03400	10.28	22.48	13.74	32.76	24.02	60.00	50.00	-27.24	-25.98
6	16.47400	10.47	12.78	7.13	23.25	17.60	60.00	50.00	-36.75	-32.40

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

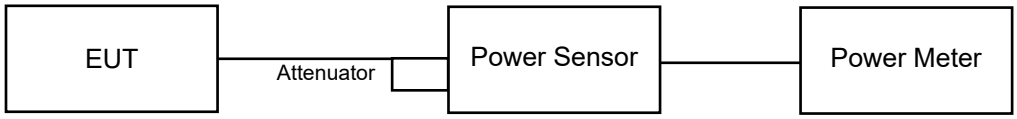
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

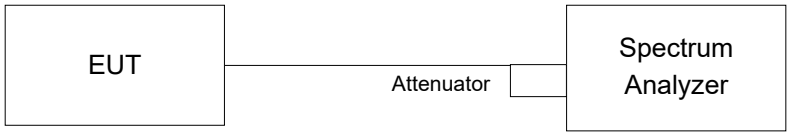
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

For Power Output



For 26dB Bandwidth and power output of transmission above 5.725 GHz where the EBW crosses 5.725 GHz



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to average. Duty factor is not added to measured value.

For transmission above 5.725 GHz where the EBW crosses 5.725 GHz
For channel aggregation (channel 138, 142, 144) measurement refer to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II E 2 b) method SA-1.

For 26dB Bandwidth

a. Set RBW = approximately 1% of the emission bandwidth.

b. Set the VBW > RBW.

c. Detector = Peak.

d. Trace mode = max hold.

e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	16.09	16.13	81.665	19.12	22.11	Pass
40	5200	15.89	16.67	85.267	19.31	22.11	Pass
48	5240	15.82	16.58	83.693	19.23	22.11	Pass
52	5260	15.83	16.10	79.021	18.98	22.11	Pass
60	5300	15.92	16.02	79.079	18.98	22.11	Pass
64	5320	15.87	16.03	78.723	18.96	22.11	Pass
100	5500	15.90	16.05	79.195	18.99	22.11	Pass
116	5580	15.78	16.02	77.839	18.91	22.11	Pass
140	5700	15.82	16.10	78.932	18.97	22.11	Pass
144	5720 (For U-NII-2C)	15.08	15.14	64.869	18.12	21.42	Pass
144	5720 (For U-NII-3)	7.47	7.52	11.234	10.51	28.11	Pass
149	5745	17.14	17.22	104.484	20.19	28.11	Pass
157	5785	17.21	17.30	106.305	20.27	28.11	Pass
165	5825	17.08	17.18	103.29	20.14	28.11	Pass

Note:

1. 5180-5250MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
2. 5250-5320MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
3. 5500-5700MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
4. 5720MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 23.31-(7.89-6) = 21.42 dBm.
5. 5745-5825MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.89-6) = 28.11 dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (20.60) = 24.13 > 24dBm
2. 11dBm + 10log (20.83) = 24.18 > 24dBm
3. 11dBm + 10log (20.35) = 24.08 > 24dBm
4. 11dBm + 10log (20.50) = 24.11 > 24dBm
5. 11dBm + 10log (20.55) = 24.12 > 24dBm
6. 11dBm + 10log (20.50) = 24.11 > 24dBm
7. 11dBm + 10log (5725.00 - 5707.14) = 23.51 < 24dBm

Chain 1

1. 11dBm + 10log (20.58) = 24.13 > 24dBm
2. 11dBm + 10log (20.51) = 24.11 > 24dBm
3. 11dBm + 10log (20.32) = 24.07 > 24dBm
4. 11dBm + 10log (20.34) = 24.08 > 24dBm
5. 11dBm + 10log (20.55) = 24.12 > 24dBm
6. 11dBm + 10log (20.58) = 24.13 > 24dBm
7. 11dBm + 10log (5725.00 - 5707.96) = 23.31 < 24dBm

802.11ac (VHT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	15.99	16.09	80.363	19.05	22.11	Pass
40	5200	16.15	16.35	84.362	19.26	22.11	Pass
48	5240	15.83	16.26	80.549	19.06	22.11	Pass
52	5260	15.83	16.05	78.554	18.95	22.11	Pass
60	5300	15.91	16.02	78.989	18.98	22.11	Pass
64	5320	15.89	15.92	77.899	18.92	22.11	Pass
100	5500	15.89	16.03	78.902	18.97	22.11	Pass
116	5580	15.90	16.03	78.991	18.98	22.11	Pass
140	5700	15.82	16.07	78.652	18.96	22.11	Pass
144	5720 (For U-NII-2C)	14.99	15.01	63.246	18.01	21.53	Pass
144	5720 (For U-NII-3)	7.89	7.99	12.447	10.95	28.11	Pass
149	5745	17.21	17.30	106.305	20.27	28.11	Pass
157	5785	16.93	17.10	100.604	20.03	28.11	Pass
165	5825	16.82	17.22	100.807	20.03	28.11	Pass

Note:
1. 5180-5250MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
2. 5250-5320MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
3. 5500-5700MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
4. 5720MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 23.42-(7.89-6) = 21.53 dBm.
5. 5745-5825MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.89-6) = 28.11 dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (20.61) = 24.14 > 24dBm
2. 11dBm + 10log (20.74) = 24.16 > 24dBm
3. 11dBm + 10log (20.57) = 24.13 > 24dBm
4. 11dBm + 10log (20.52) = 24.12 > 24dBm
5. 11dBm + 10log (20.68) = 24.15 > 24dBm
6. 11dBm + 10log (20.70) = 24.15 > 24dBm
7. 11dBm + 10log (5725.00 - 5707.54) = 23.42 < 24dBm

Chain 1

1. 11dBm + 10log (20.74) = 24.16 > 24dBm
2. 11dBm + 10log (20.77) = 24.17 > 24dBm
3. 11dBm + 10log (20.65) = 24.14 > 24dBm
4. 11dBm + 10log (20.57) = 24.13 > 24dBm
5. 11dBm + 10log (20.70) = 24.15 > 24dBm
6. 11dBm + 10log (20.61) = 24.14 > 24dBm
7. 11dBm + 10log (5725.00 - 5707.36) = 23.46 < 24dBm

802.11ac (VHT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	16.21	17.21	94.385	19.75	22.11	Pass
46	5230	17.12	17.31	**105.35**	20.23	22.11	Pass
54	5270	15.92	16.03	79.171	18.99	22.11	Pass
62	5310	15.93	16.05	**79.446**	19.00	22.11	Pass
102	5510	15.86	15.99	78.267	18.94	22.11	Pass
110	5550	15.78	16.05	78.116	18.93	22.11	Pass
134	5670	15.81	16.12	79.033	18.98	22.11	Pass
142	5710 (For U-NII-2C)	16.00	16.01	79.713	19.02	22.11	Pass
142	5710 (For U-NII-3)	5.02	5.04	6.368	8.04	28.11	Pass
151	5755	17.25	17.33	**107.164**	20.30	28.11	Pass
159	5795	17.24	17.33	107.042	20.30	28.11	Pass

Note:
1. 5180-5250MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
2. 5250-5320MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
3. 5500-5720MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
4. 5745-5825MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.89-6) = 28.11 dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (41.62) = 27.19 > 24dBm
2. 11dBm + 10log (41.55) = 27.18 > 24dBm
3. 11dBm + 10log (41.58) = 27.18 > 24dBm
4. 11dBm + 10log (41.57) = 27.18 > 24dBm
5. 11dBm + 10log (41.85) = 27.21 > 24dBm
6. 11dBm + 10log (5725.00 - 5678.67) = 27.65 > 24dBm

Chain 1

1. 11dBm + 10log (42.03) = 27.23 > 24dBm
2. 11dBm + 10log (41.67) = 27.19 > 24dBm
3. 11dBm + 10log (41.90) = 27.22 > 24dBm
4. 11dBm + 10log (41.97) = 27.22 > 24dBm
5. 11dBm + 10log (42.08) = 27.24 > 24dBm
6. 11dBm + 10log (5725.00 - 5682.29) = 27.30 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	15.12	15.31	66.471	18.23	22.11	Pass
58	5290	13.82	14.12	49.922	16.98	22.11	Pass
106	5530	13.88	14.21	50.798	17.06	22.11	Pass
122	5610	15.83	16.01	78.185	18.93	22.11	Pass
138	5690 (For U-NII-2C)	16.01	16.02	**79.897**	19.03	22.11	Pass
138	5690 (For U-NII-3)	1.21	1.44	2.714	4.34	28.11	Pass
155	5775	16.82	17.15	99.964	20.00	28.11	Pass

Note:
1. 5180-5250MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
2. 5250-5320MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
3. 5500-5720MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 24-(7.89-6) = 22.11 dBm.
4. 5745-5825MHz: the maximum gain is 7.89 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.89-6) = 28.11 dBm.

For U-NII-2A, U-NII-2C Band:

Chain 0

1. 11dBm + 10log (81.49) = 30.11 > 24dBm
2. 11dBm + 10log (81.53) = 30.11 > 24dBm
3. 11dBm + 10log (81.55) = 30.11 > 24dBm
4. 11dBm + 10log (5725.00 - 5617.00) = 31.33 > 24dBm

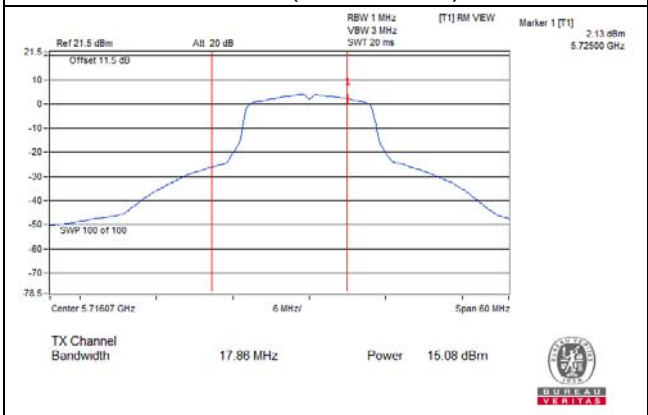
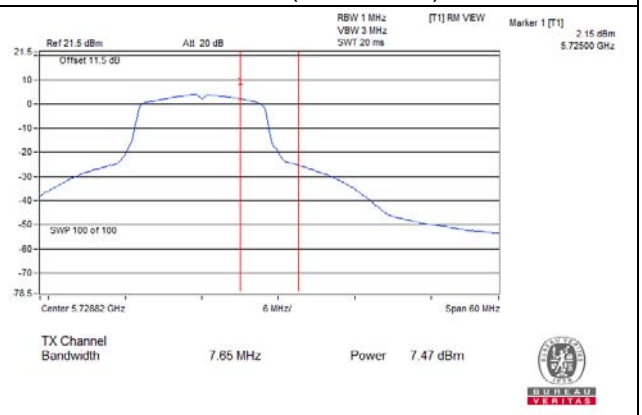
Chain 1

1. 11dBm + 10log (81.71) = 30.12 > 24dBm
2. 11dBm + 10log (81.58) = 30.11 > 24dBm
3. 11dBm + 10log (81.79) = 30.12 > 24dBm
4. 11dBm + 10log (5725.00 - 5628.56) = 30.84 > 24dBm

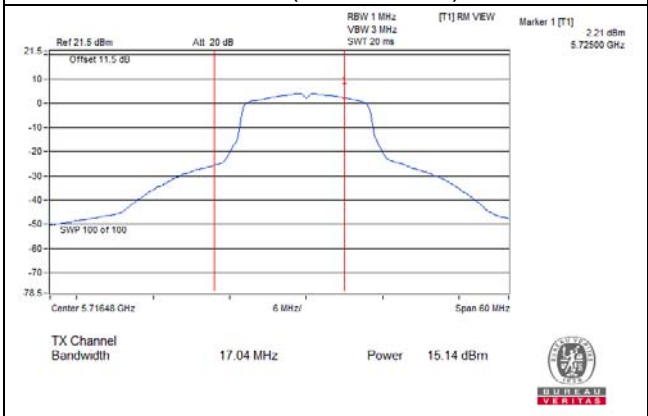
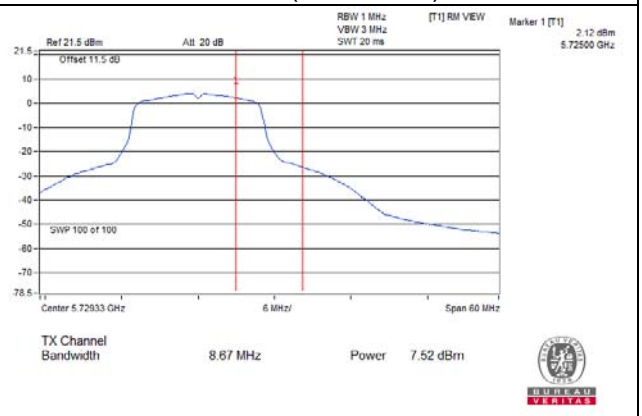
Straddle channel power plots:

802.11a

Chain 0

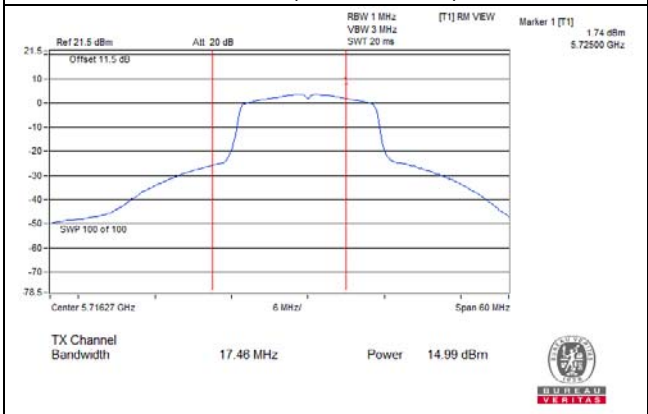
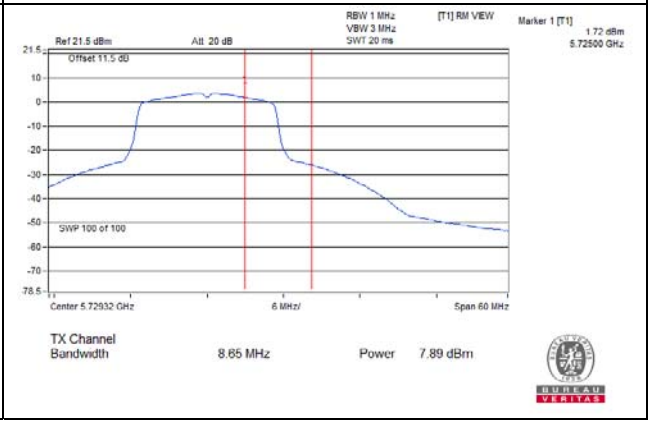
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

Chain 1

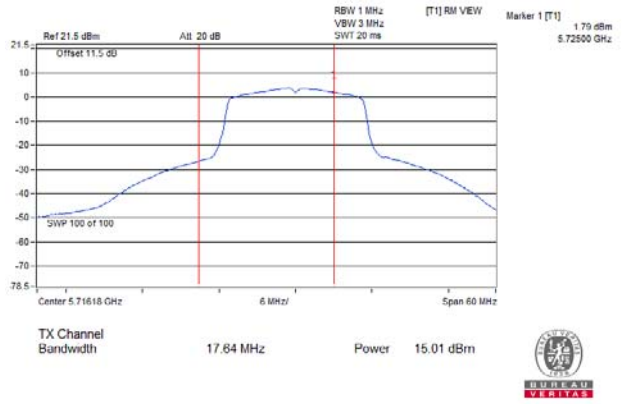
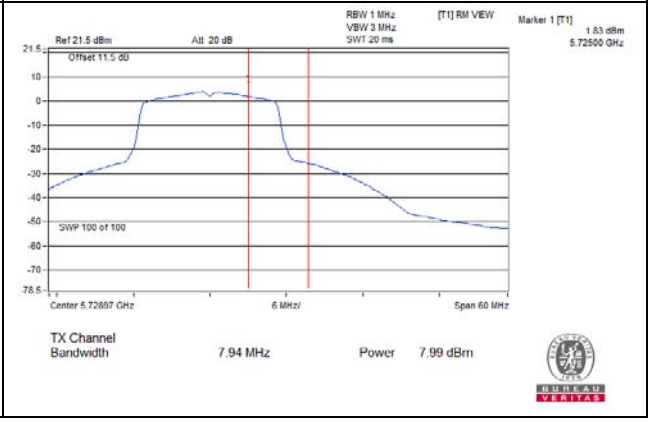
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

802.11ac (VHT20)

Chain 0

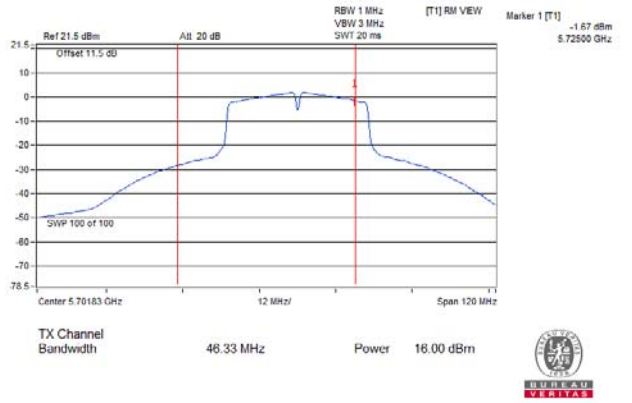
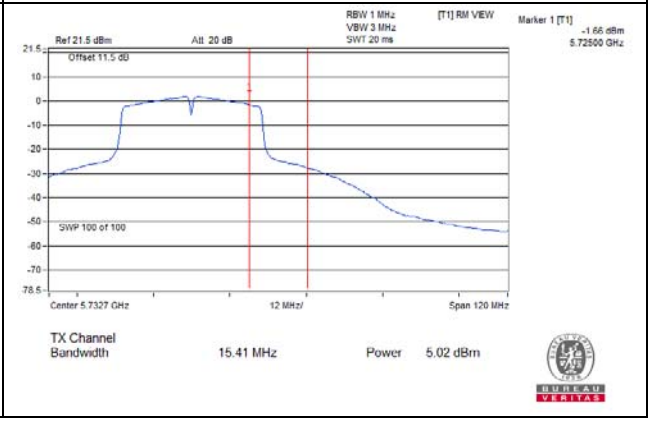
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

Chain 1

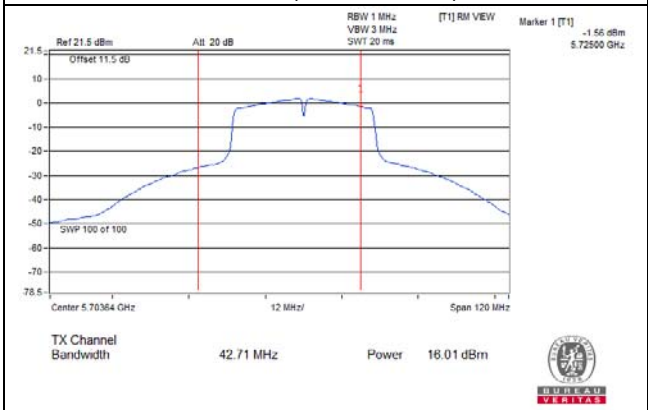
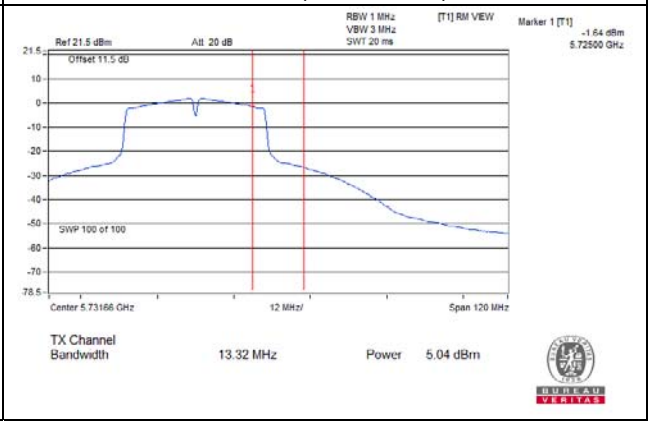
CH 144 (For U-NII-2C)	CH 144 (For U-NII-3)
	

802.11ac (VHT40)

Chain 0

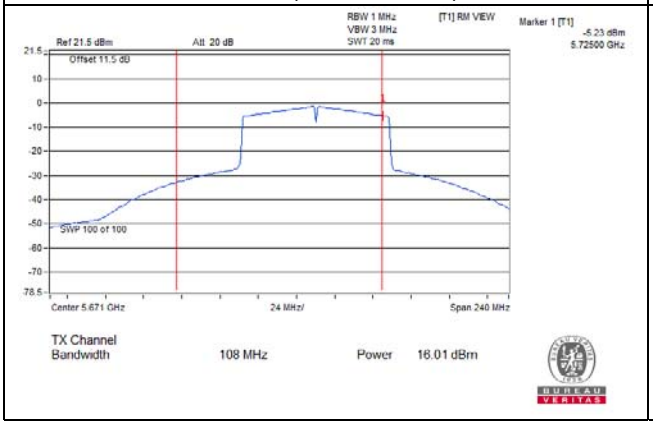
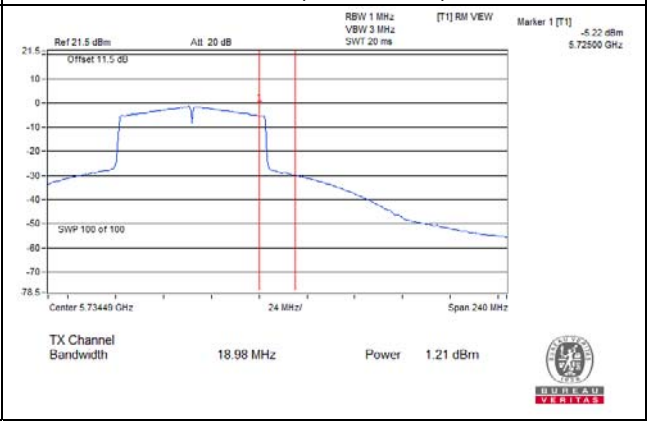
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

Chain 1

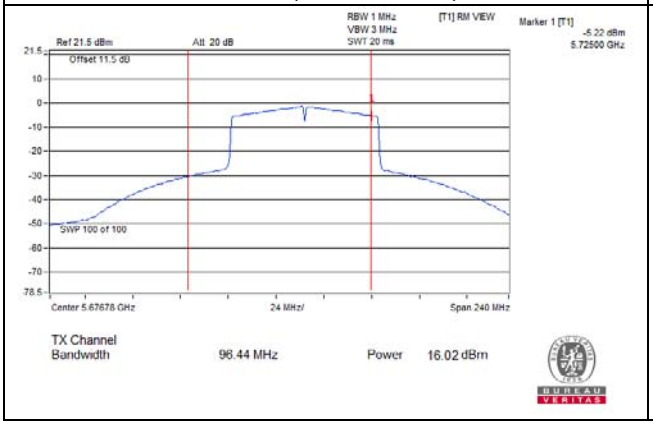
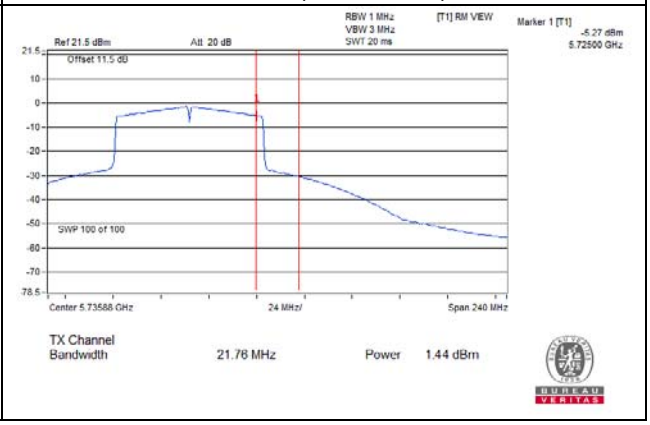
CH 142 (For U-NII-2C)	CH 142 (For U-NII-3)
	

802.11ac (VHT80)

Chain 0

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

Chain 1

CH 138 (For U-NII-2C)	CH 138 (For U-NII-3)
	

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.60	20.58
60	5300	20.83	20.51
64	5320	20.35	20.32
100	5500	20.50	20.34
116	5580	20.55	20.55
140	5700	20.50	20.58
144	5720 (For U-NII-2C)	17.86	17.04

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11ac (VHT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.61	20.74
60	5300	20.74	20.77
64	5320	20.57	20.65
100	5500	20.52	20.57
116	5580	20.68	20.70
140	5700	20.70	20.61
144	5720 (For U-NII-2C)	17.46	17.64

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11ac (VHT40)

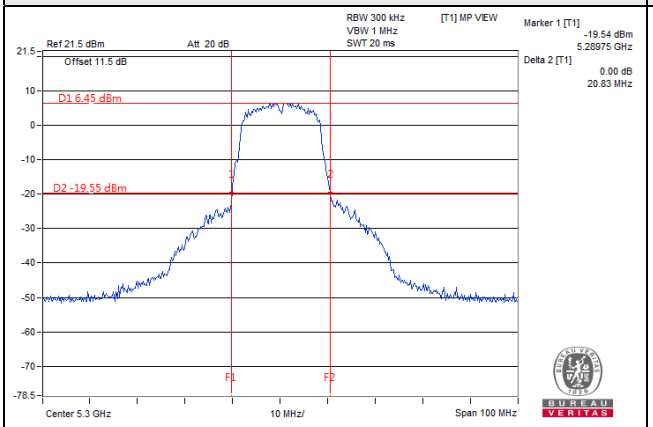
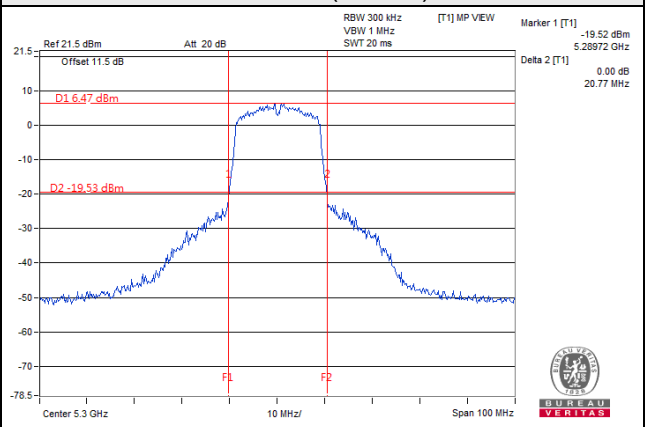
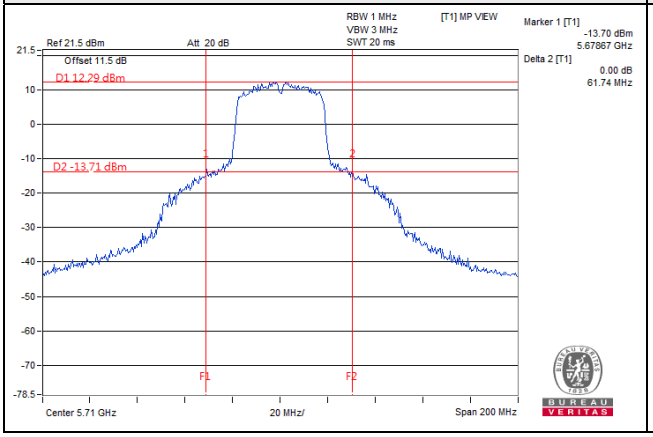
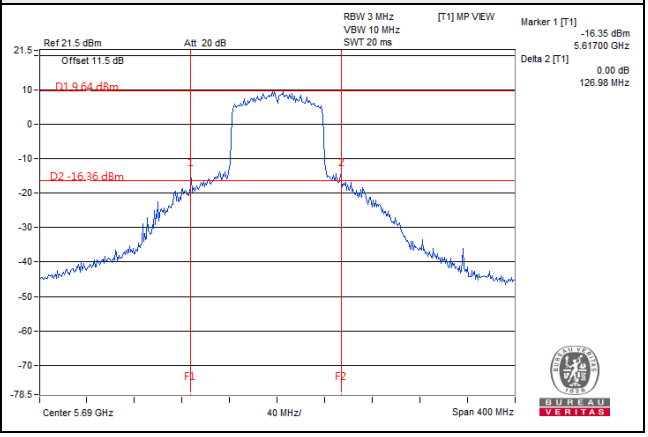
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	41.62	42.03
62	5310	41.55	41.67
102	5510	41.58	41.90
110	5550	41.57	41.97
134	5670	41.85	42.08
142	5710 (For U-NII-2C)	46.33	42.71

For CH142 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.49	81.71
106	5530	81.53	81.58
122	5610	81.55	81.79
138	5690 (For U-NII-2C)	108.00	96.44

For CH138 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

EUT Maximum Conducted Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	79.079	18.98
5470~5725	79.195	18.99

802.11ac (VHT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	78.989	18.98
5470~5725	78.991	18.98

802.11ac (VHT40)

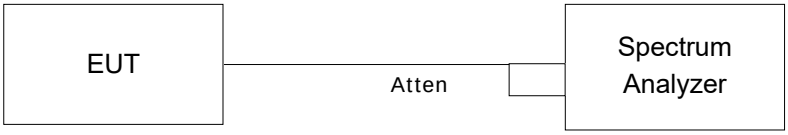
Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	79.446	19.00
5470~5725	79.713	19.02

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	49.922	16.98
5470~5725	79.897	19.03

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

4.4.4 Test Result

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.56	16.56
40	5200	16.56	16.56
48	5240	16.56	16.56
52	5260	16.56	16.56
60	5300	16.56	16.56
64	5320	16.56	16.68
100	5500	16.56	16.68
116	5580	16.56	16.56
140	5700	16.68	16.68
144	5720 (For U-NII-2C)	13.52	13.52
144	5720 (For U-NII-3)	3.40	3.64
149	5745	16.64	16.54
157	5785	16.64	16.64
165	5825	16.54	16.64

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH144 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11ac (VHT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.76	17.64
40	5200	17.76	17.76
48	5240	16.56	16.80
52	5260	17.64	17.76
60	5300	17.76	17.64
64	5320	17.76	17.76
100	5500	17.76	17.76
116	5580	17.76	17.64
140	5700	17.64	17.76
144	5720 (For U-NII-2C)	13.88	14.00
144	5720 (For U-NII-3)	4.00	4.00
149	5745	17.79	17.70
157	5785	17.79	17.79
165	5825	17.70	17.70

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH144 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11ac (VHT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.36	36.24
46	5230	36.48	36.48
54	5270	36.48	36.36
62	5310	36.24	36.24
102	5510	36.24	36.36
110	5550	36.48	36.48
134	5670	36.48	36.48
142	5710 (For U-NII-2C)	33.48	33.48
142	5710 (For U-NII-3)	3.48	3.48
151	5755	36.16	36.35
159	5795	36.34	36.44

For CH142 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

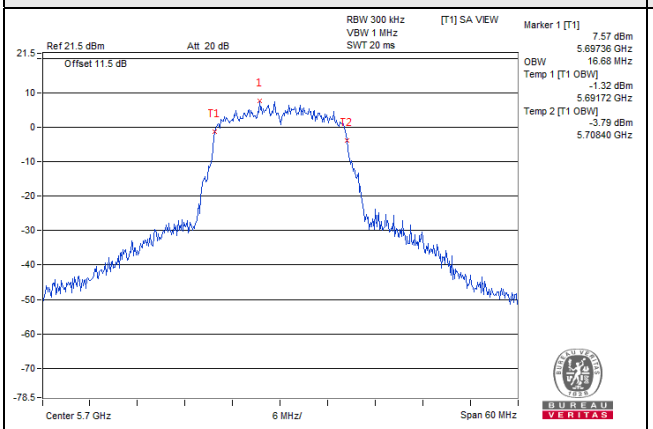
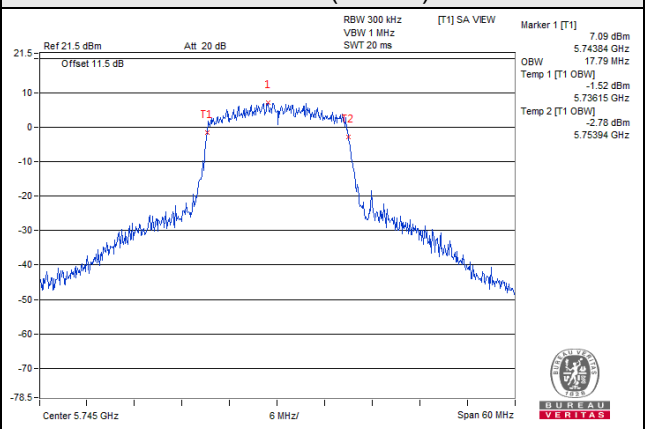
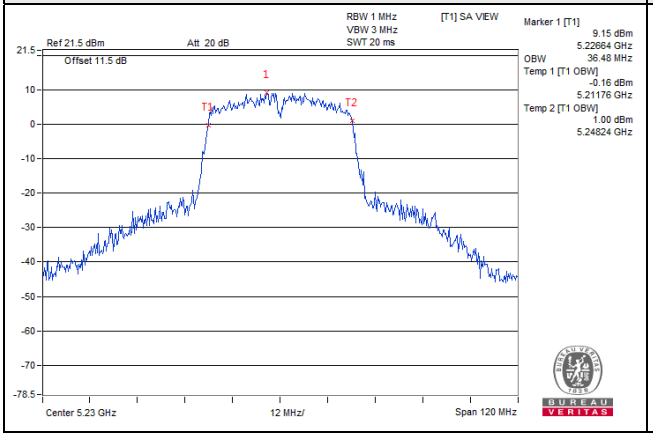
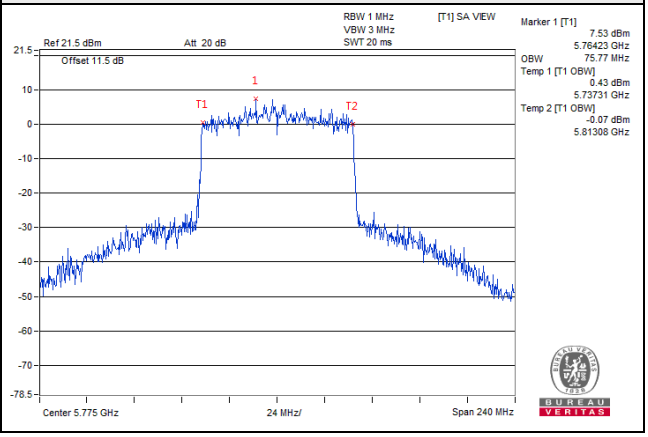
For CH142 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

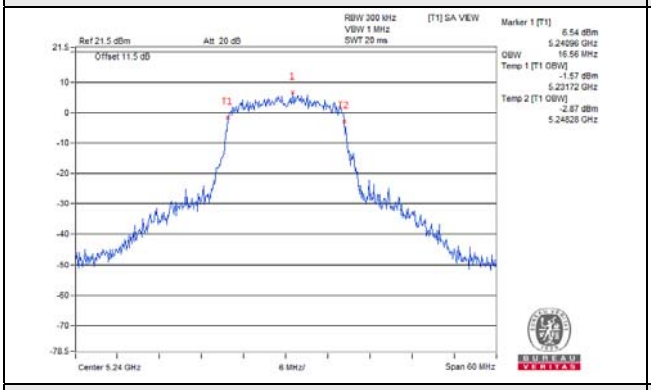
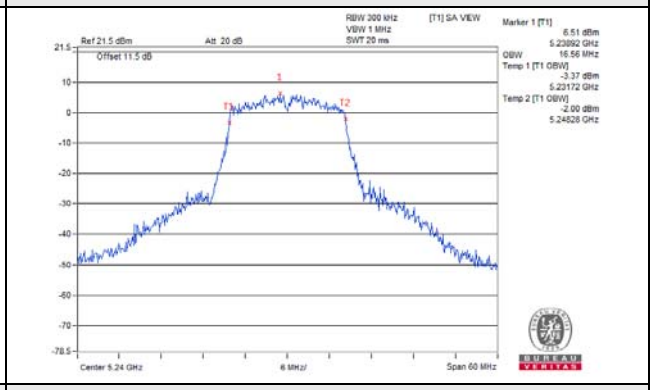
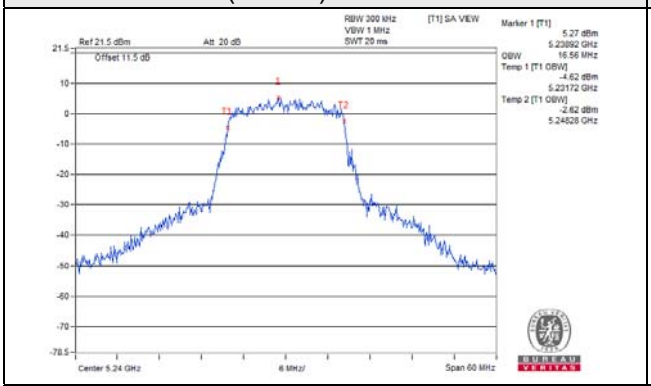
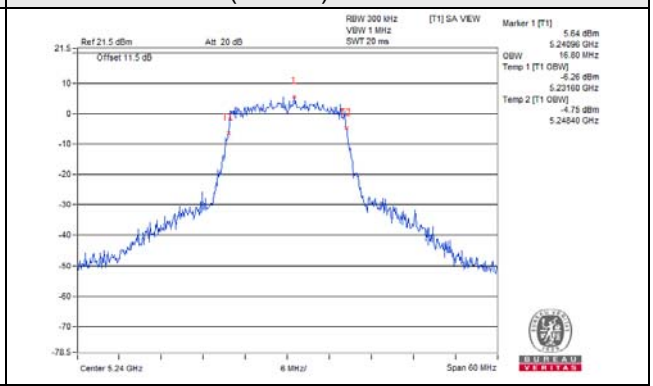
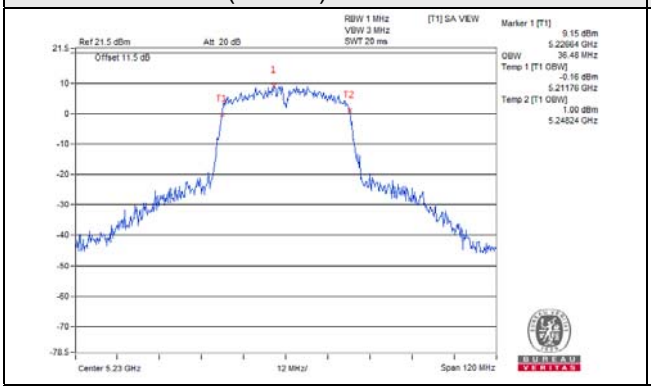
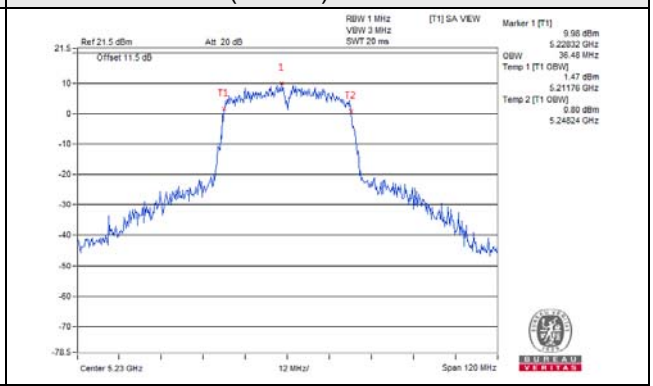
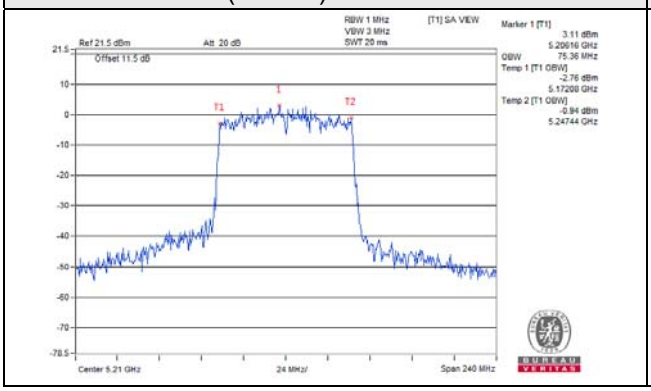
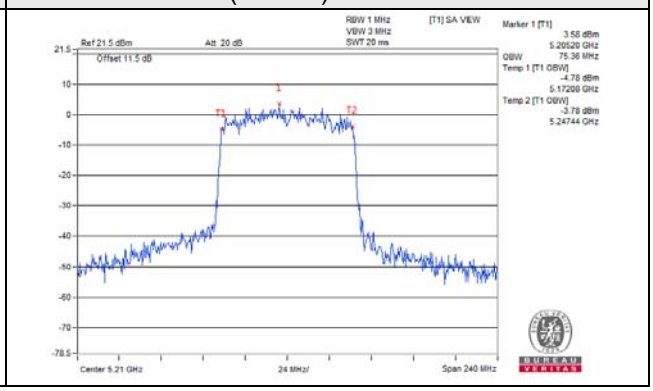
802.11ac (VHT80)

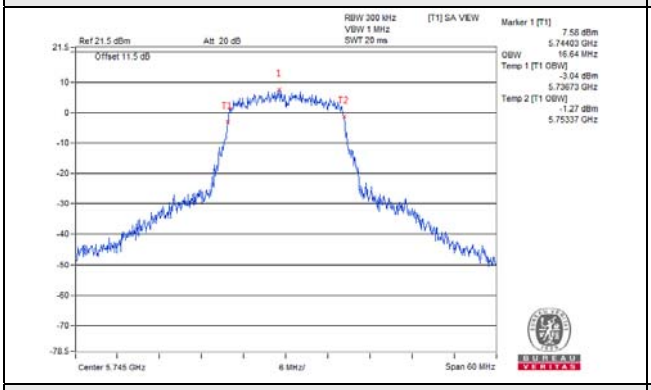
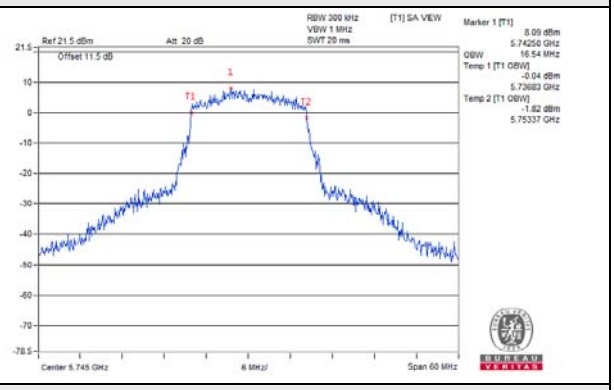
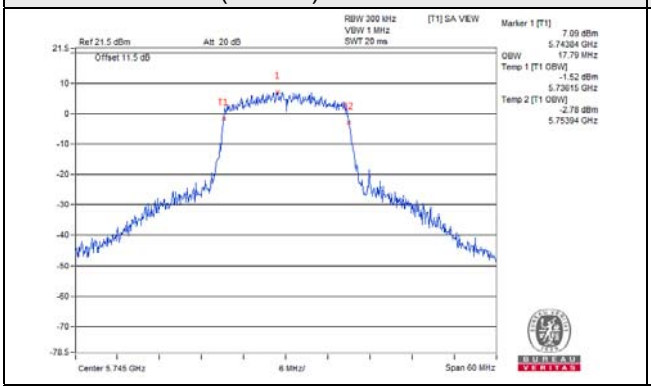
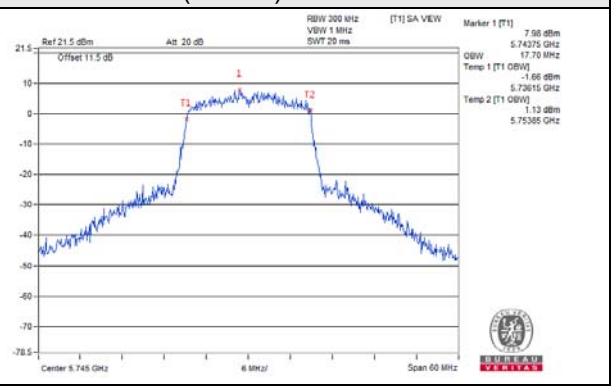
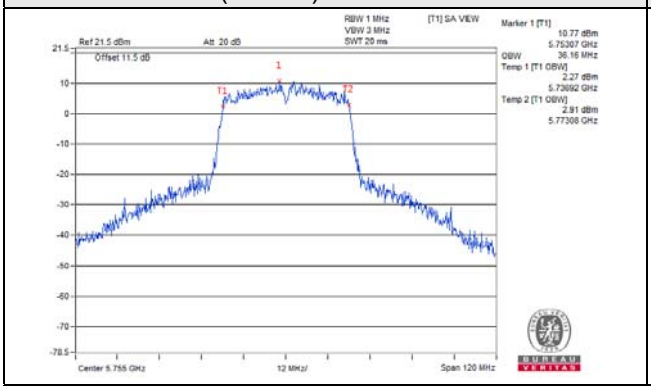
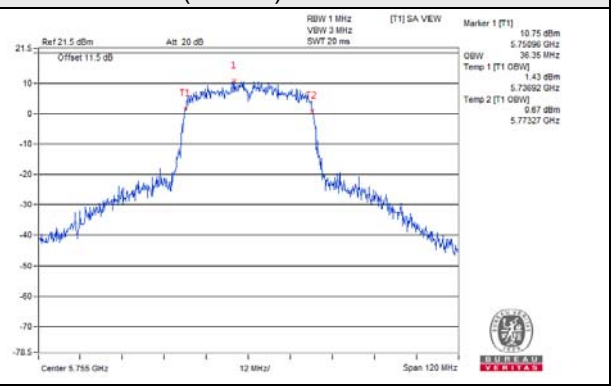
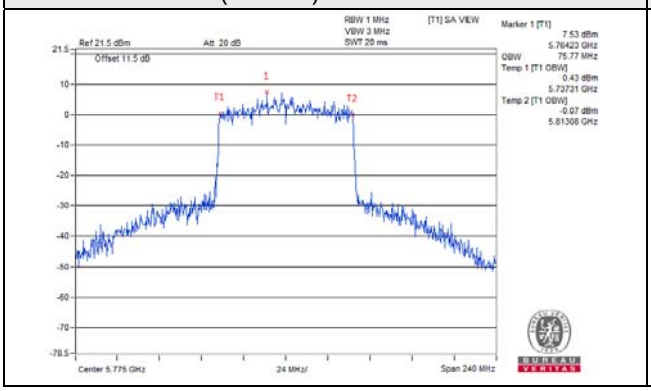
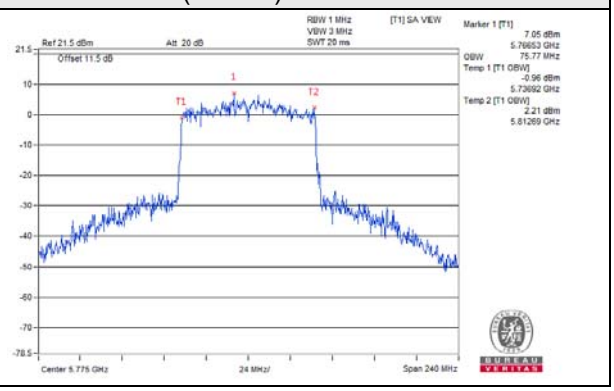
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.36	75.36
58	5290	75.36	75.36
106	5530	75.36	75.36
122	5610	75.36	75.36
138	5690 (For U-NII-2C)	72.92	72.92
138	5690 (For U-NII-3)	2.92	2.92
155	5775	75.77	75.77

For CH138 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH138 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

Spectrum Plot for near By DFS Band	
802.11a / Chain 0 / CH 48	802.11a / Chain 1 / CH 48
	
802.11ac (VHT20) / Chain 0 / CH 48	802.11ac (VHT20) / Chain 1 / CH 48
	
802.11ac (VHT40) / Chain 0 / CH 46	802.11ac (VHT40) / Chain 1 / CH 46
	
802.11ac (VHT80) / Chain 0 / CH 42	802.11ac (VHT80) / Chain 1 / CH 42
	

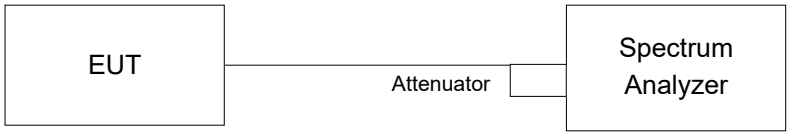
Spectrum Plot for near By DFS Band	
802.11a / Chain 0 / CH 149	802.11a / Chain 1 / CH 149
	
802.11ac (VHT20) / Chain 0 / CH 149	802.11ac (VHT20) / Chain 1 / CH 149
	
802.11ac (VHT40) / Chain 0 / CH 151	802.11ac (VHT40) / Chain 1 / CH 151
	
802.11ac (VHT80) / Chain 0 / CH 155	802.11ac (VHT80) / Chain 1 / CH 155
	

4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Mobile and Portable client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-1, U-NII-2A and U-NII-2C band:

Duty cycle of test signal is ≥ 98%
Using method SA-1
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS.
3) Set Channel power measure = 1MHz.
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value.

For U-NII-3 band:

Duty cycle ≥ 98%
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS.
3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured 1) power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 kHz).
5) Sweep time = auto, trigger set to “free run”.
6) Trace average at least 100 traces in power averaging mode.
7) Record the max value.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

For U-NII-1, U-NII-2A and U-NII-2C band:

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	3.03	3.06	6.06	6.37	Pass
40	5200	2.87	3.63	6.28	6.37	Pass
48	5240	2.78	3.26	6.04	6.37	Pass
52	5260	2.79	2.96	5.89	6.37	Pass
60	5300	2.89	3.02	5.97	6.37	Pass
64	5320	2.81	3.01	5.92	6.37	Pass
100	5500	2.86	3.03	5.96	6.37	Pass
116	5580	2.69	2.96	5.84	6.37	Pass
140	5720	2.80	3.10	5.96	6.37	Pass
144	5720 (For U-NII-2C)	3.31	3.21	6.27	6.37	Pass

Note:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 11-(10.63-6) = 6.37 dBm/MHz.

802.11ac (VHT20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	2.86	3.05	5.97	6.37	Pass
40	5200	3.06	3.24	6.16	6.37	Pass
48	5240	2.78	3.14	5.97	6.37	Pass
52	5260	2.81	2.98	5.91	6.37	Pass
60	5300	2.88	2.95	5.93	6.37	Pass
64	5320	2.86	2.86	5.87	6.37	Pass
100	5500	2.88	3.05	5.98	6.37	Pass
116	5580	2.82	3.01	5.93	6.37	Pass
140	5720	2.79	3.05	5.93	6.37	Pass
144	5720 (For U-NII-2C)	3.15	3.15	6.16	6.37	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 11-(10.63-6) = 6.37 dBm/MHz.

802.11ac (VHT40)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	0.16	1.19	3.72	6.37	Pass
46	5230	1.07	1.27	4.18	6.37	Pass
54	5270	-0.10	0.00	2.96	6.37	Pass
62	5310	-0.08	0.00	2.97	6.37	Pass
102	5510	-0.11	0.00	2.96	6.37	Pass
110	5550	-0.23	0.04	2.92	6.37	Pass
134	5670	-0.19	0.12	2.98	6.37	Pass
142	5710	1.02	1.24	4.14	6.37	Pass

Note:
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 11-(10.63-6) = 6.37 dBm/MHz.

802.11ac (VHT80)

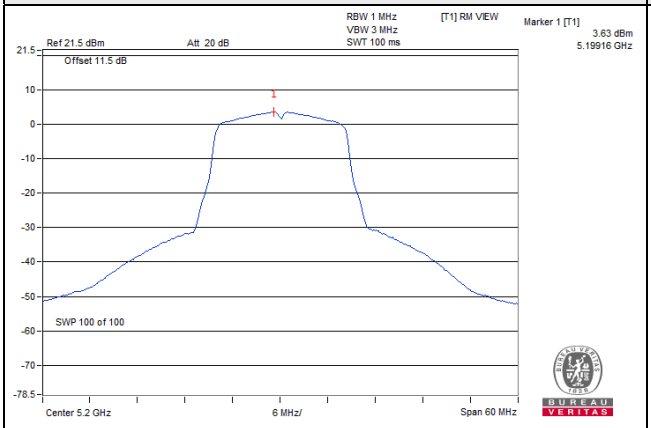
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
42	5210	-3.84	-3.76	-0.79	6.37	Pass
58	5290	-5.33	-4.72	-2.00	6.37	Pass
106	5530	-5.21	-4.75	-1.96	6.37	Pass
122	5610	-3.22	-2.80	0.01	6.37	Pass
138	5690 (For U-NII-2C)	-2.02	-1.82	1.09	6.37	Pass

Note:

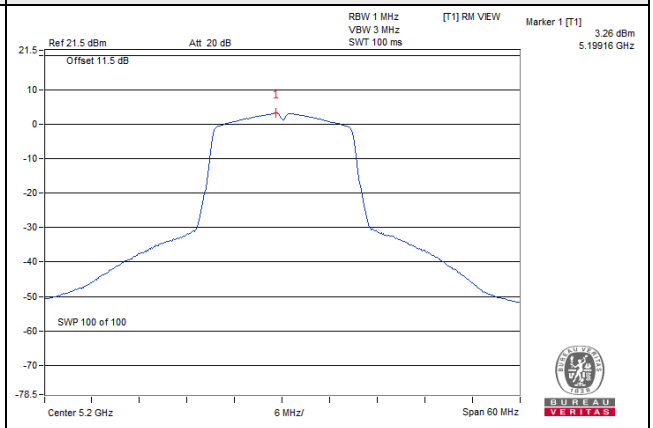
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20}$)^2/2]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 11-(10.63-6) = 6.37 dBm/MHz.

Spectrum Plot of Worst Value

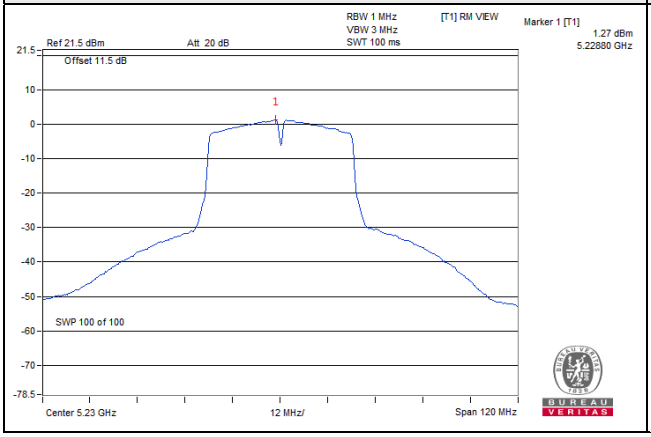
802.11a / Chain 1 / CH 40



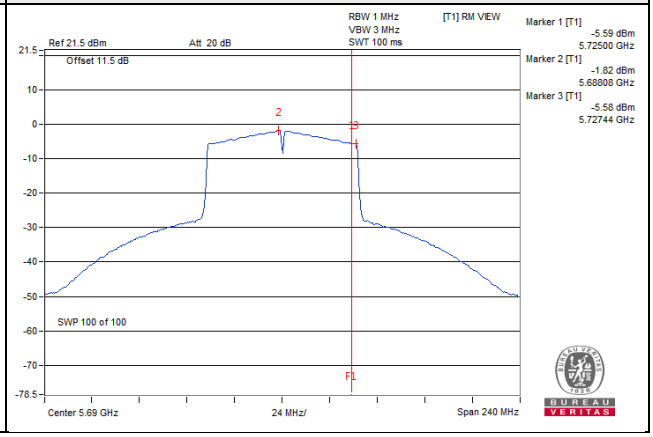
802.11ac (VHT20) / Chain 1 / CH 40



802.11ac (VHT40) / Chain 1 / CH 46



802.11ac (VHT80) / Chain 1 / 138



For U-NII-3 band:

802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	144	5720 (For U-NII-3)	-6.41	-4.19	3.01	-1.18	25.37	Pass
	149	5745	-4.41	-2.19	3.01	0.82	25.37	Pass
	157	5785	-4.65	-2.43	3.01	0.58	25.37	Pass
	165	5825	-4.57	-2.35	3.01	0.66	25.37	Pass
1	144	5720 (For U-NII-3)	-6.29	-4.07	3.01	-1.06	25.37	Pass
	149	5745	-4.00	-1.78	3.01	1.23	25.37	Pass
	157	5785	-4.19	-1.97	3.01	1.04	25.37	Pass
	165	5825	-4.45	-2.23	3.01	0.78	25.37	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 30-(10.63-6) = 25.37 dBm/500kHz.

802.11ac (VHT20)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	144	5720 (For U-NII-3)	-6.77	-4.55	3.01	-1.54	25.37	Pass
	149	5745	-4.18	-1.96	3.01	1.05	25.37	Pass
	157	5785	-4.92	-2.70	3.01	0.31	25.37	Pass
	165	5825	-4.75	-2.53	3.01	0.48	25.37	Pass
1	144	5720 (For U-NII-3)	-6.62	-4.40	3.01	-1.39	25.37	Pass
	149	5745	-4.27	-2.05	3.01	0.96	25.37	Pass
	157	5785	-4.37	-2.15	3.01	0.86	25.37	Pass
	165	5825	-4.56	-2.34	3.01	0.67	25.37	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 30-(10.63-6) = 25.37 dBm/500kHz.

802.11ac (VHT40)

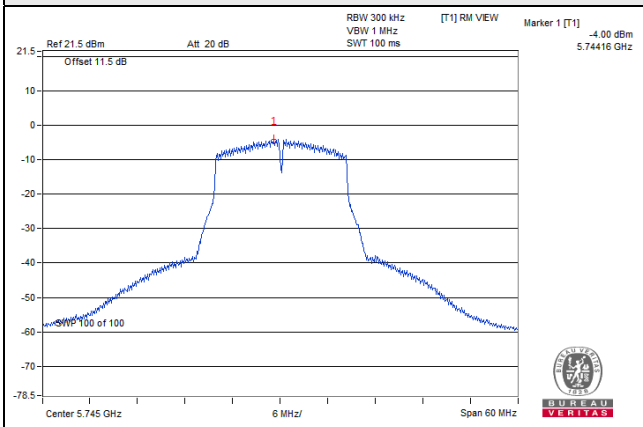
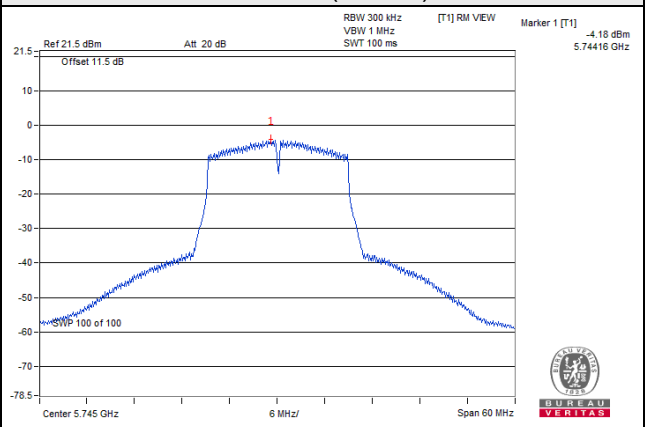
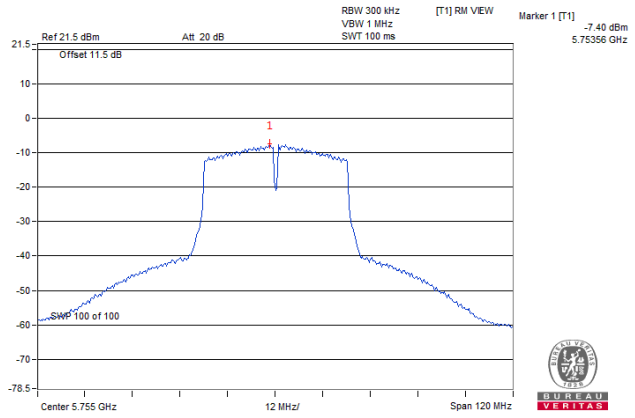
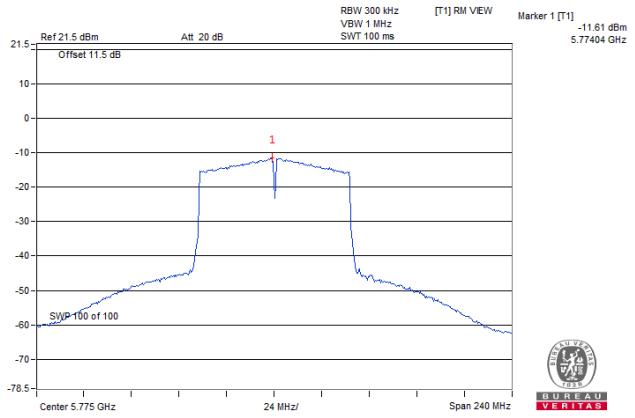
TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	142	5710 (For U-NII-3)	-10.75	-8.53	3.01	-5.52	25.37	Pass
	151	5755	-7.77	-5.55	3.01	-2.54	25.37	Pass
	159	5795	-8.24	-6.02	3.01	-3.01	25.37	Pass
1	142	5710 (For U-NII-3)	-10.76	-8.54	3.01	-5.53	25.37	Pass
	151	5755	-7.40	-5.18	3.01	-2.17	25.37	Pass
	159	5795	-7.69	-5.47	3.01	-2.46	25.37	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 30-(10.63-6) = 25.37 dBm/500kHz.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/ 500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	138	5690 (For U-NII-3)	-14.29	-12.07	3.01	-9.06	25.37	Pass
	155	5775	-11.71	-9.49	3.01	-6.48	25.37	Pass
1	138	5690 (For U-NII-3)	-14.47	-12.25	3.01	-9.24	25.37	Pass
	155	5775	-11.61	-9.39	3.01	-6.38	25.37	Pass

Note:
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/2$]= 10.63 dBi > 6dBi, so the power density limit shall be reduced to 30-(10.63-6) = 25.37 dBm/500kHz.

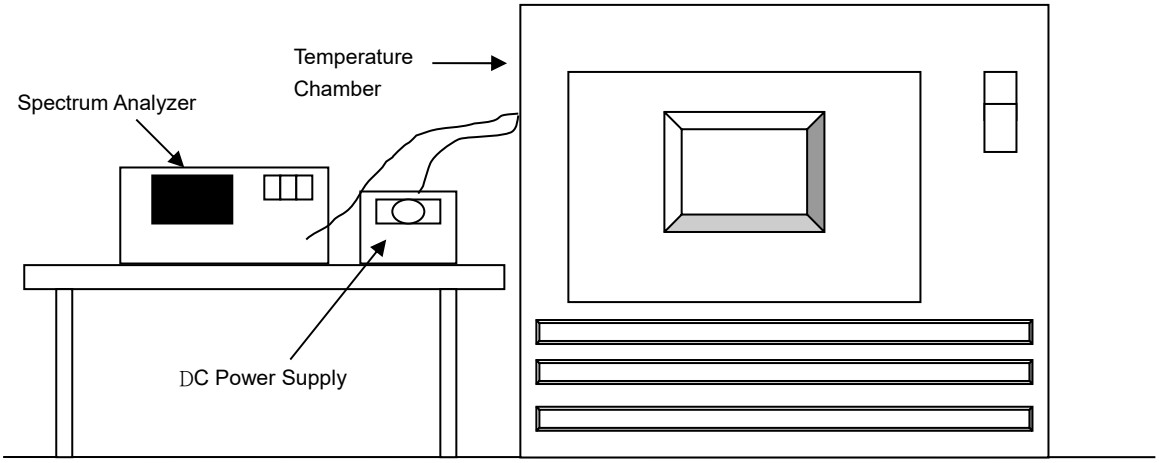
Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

The frequency of the carrier signal shall be maintained within band of operation

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 15, 2021	Sep. 14, 2022
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	May 30, 2022	May 29, 2023
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2022	Jun. 22, 2023
DC Power Supply Topward	6603D	700637	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested data: Jul. 05, 2022

4.6.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
55	53	5180.0005	Pass	5180.0042	Pass	5180.0040	Pass	5180.0013	Pass
50	53	5180.0121	Pass	5180.0123	Pass	5180.0093	Pass	5180.0097	Pass
40	53	5179.9845	Pass	5179.9859	Pass	5179.9845	Pass	5179.9814	Pass
30	53	5179.9980	Pass	5179.9977	Pass	5179.9971	Pass	5180.0007	Pass
20	53	5179.9911	Pass	5179.9885	Pass	5179.9891	Pass	5179.9913	Pass
10	53	5179.9774	Pass	5179.9757	Pass	5179.9751	Pass	5179.9776	Pass
0	53	5179.9949	Pass	5179.9913	Pass	5179.9915	Pass	5179.9927	Pass
-10	53	5179.9827	Pass	5179.9797	Pass	5179.9801	Pass	5179.9807	Pass
-20	53	5180.0228	Pass	5180.0230	Pass	5180.0205	Pass	5180.0219	Pass

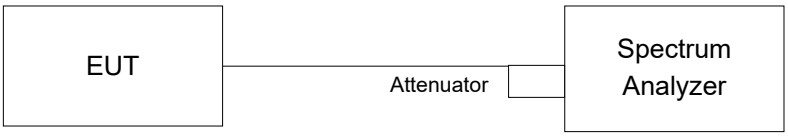
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	60.95	5179.9836	Pass	5179.9838	Pass	5179.9875	Pass	5179.9839	Pass
	53.00	5179.9911	Pass	5179.9885	Pass	5179.9891	Pass	5179.9913	Pass
	45.05	5179.9838	Pass	5179.9850	Pass	5179.9847	Pass	5179.9817	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	3.21	3.21	0.50	Pass
149	5745	16.37	16.38	0.50	Pass
157	5785	16.39	16.41	0.50	Pass
165	5825	16.40	16.39	0.50	Pass

For CH144 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	3.82	3.83	0.50	Pass
149	5745	17.63	17.65	0.50	Pass
157	5785	17.59	17.65	0.50	Pass
165	5825	17.62	17.64	0.50	Pass

For CH144 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ac (VHT40)

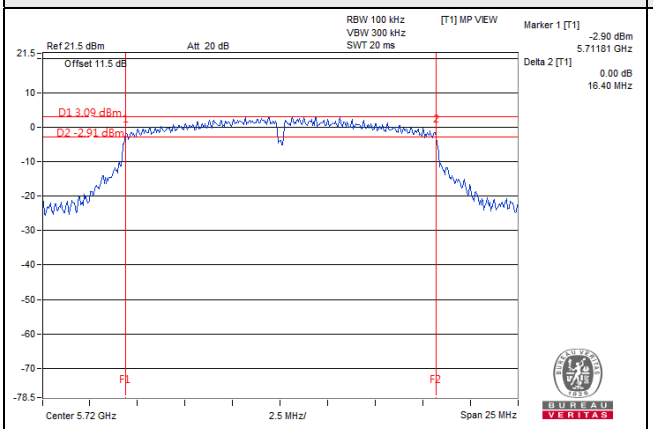
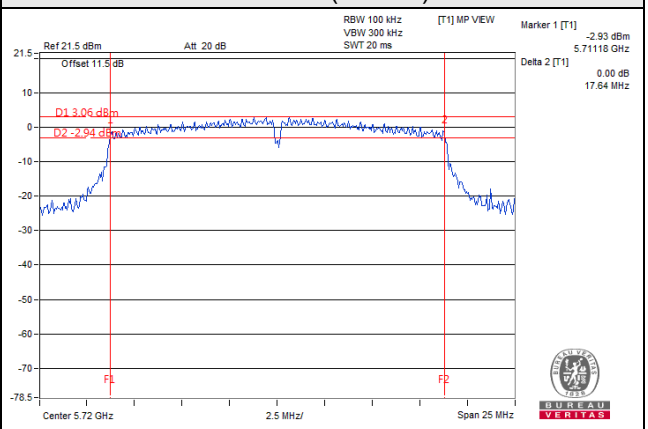
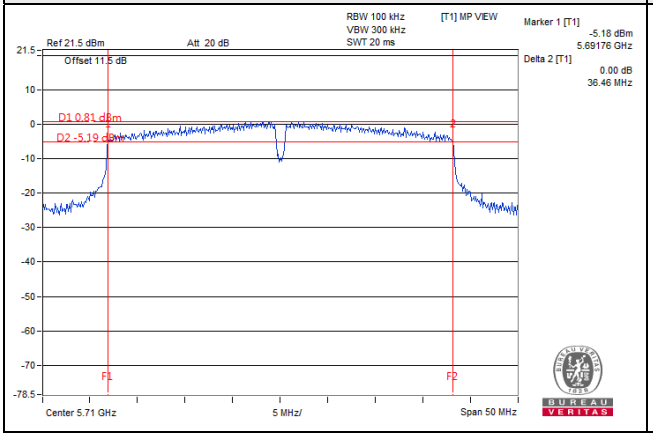
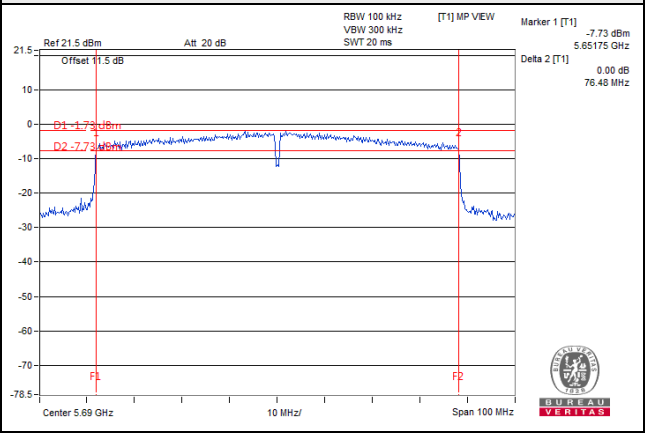
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 (For U-NII-3)	3.22	3.22	0.50	Pass
151	5755	36.41	36.42	0.50	Pass
159	5795	36.41	36.42	0.50	Pass

For CH142 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ac (VHT80)

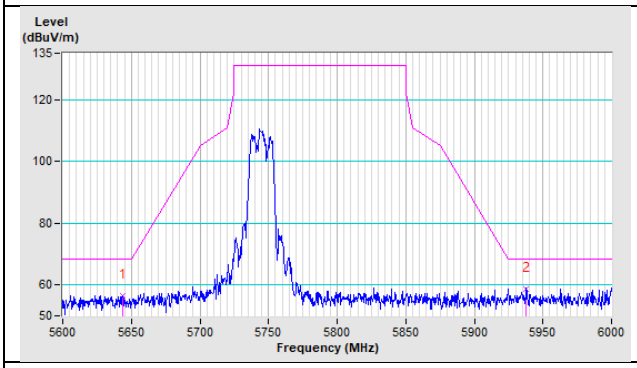
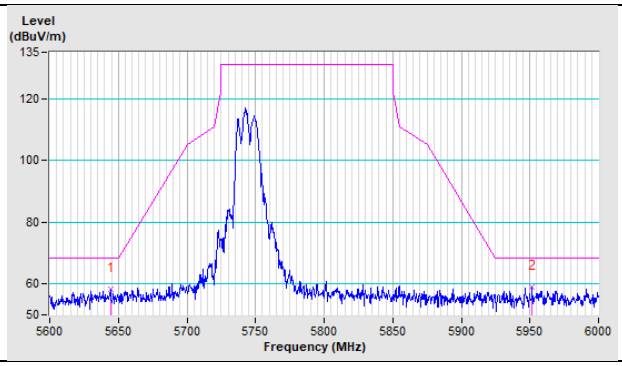
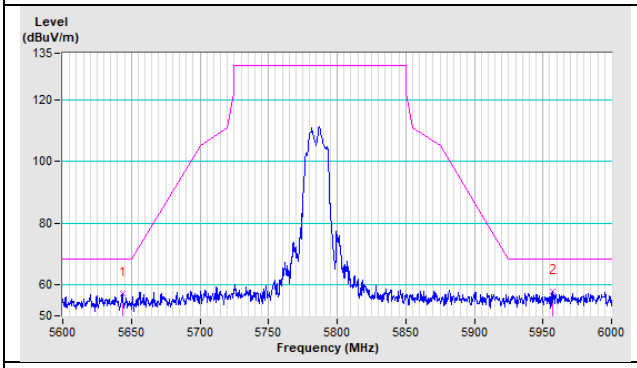
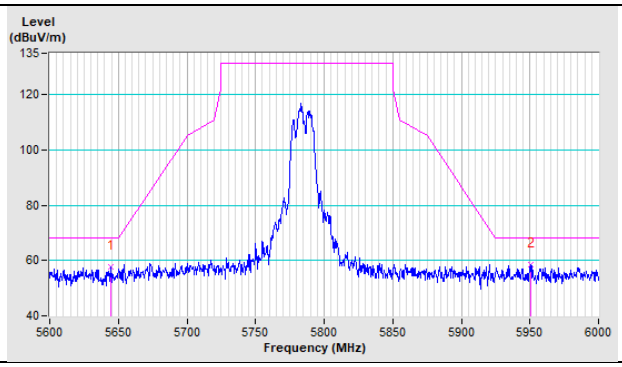
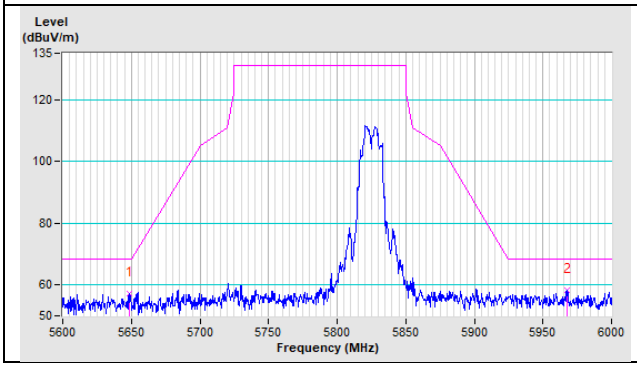
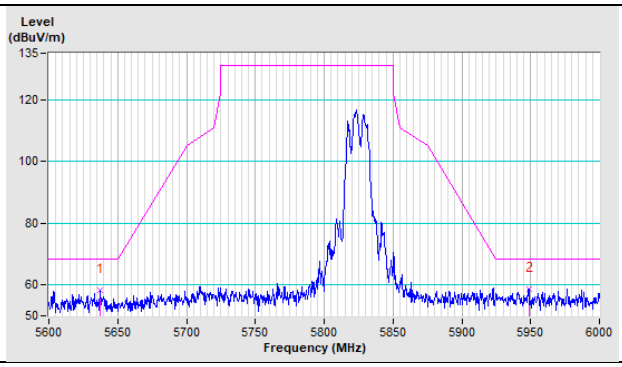
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138	5690 (For U-NII-3)	3.24	3.23	0.50	Pass
155	5775	76.49	76.50	0.50	Pass

For CH138 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

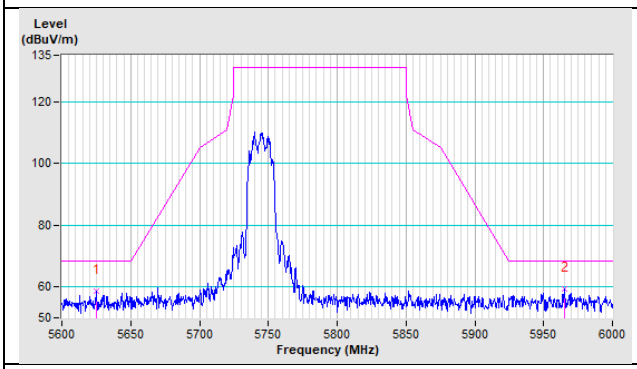
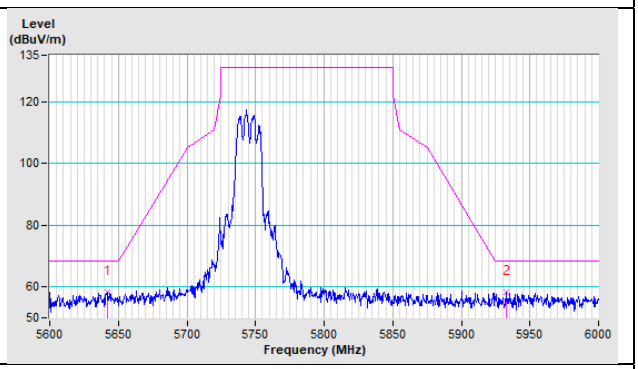
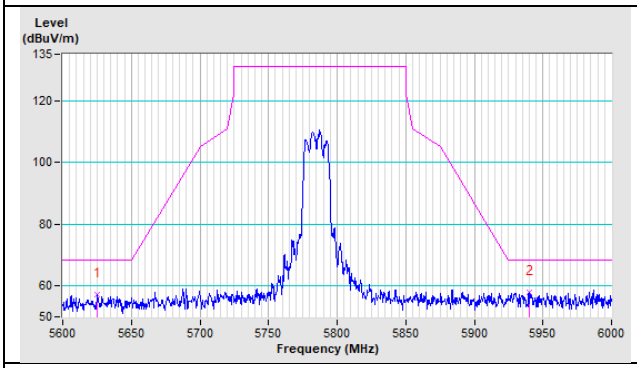
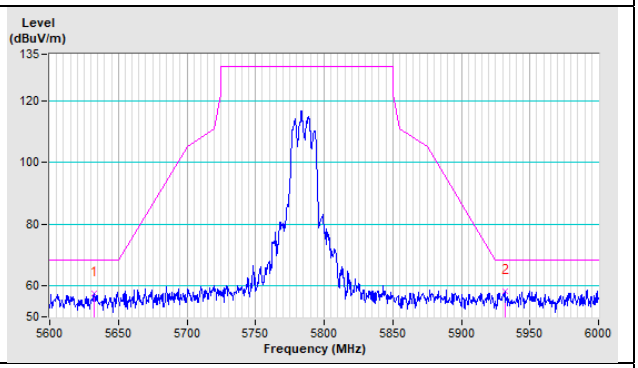
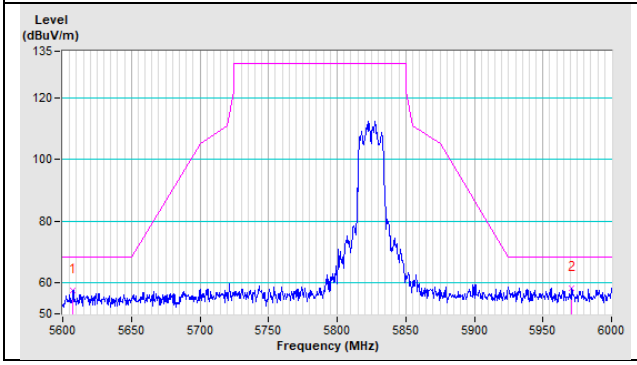
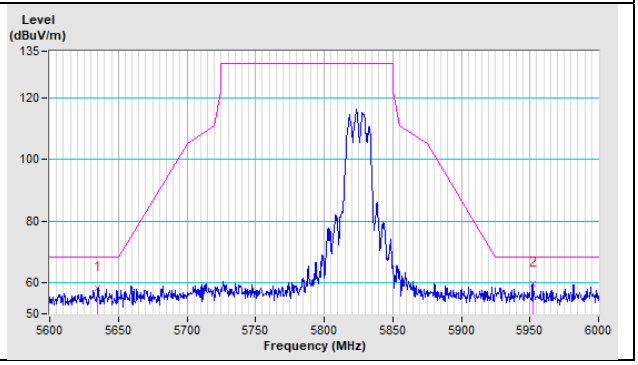
Spectrum Plot of Worst Value	
802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	802.11ac (VHT80)
	

Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

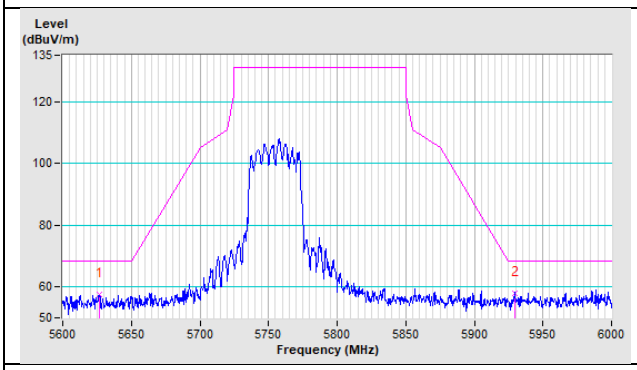
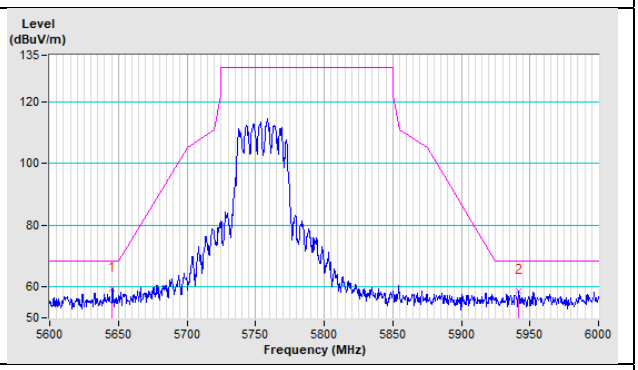
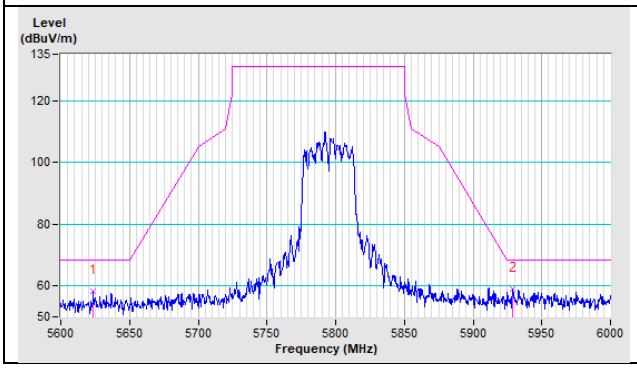
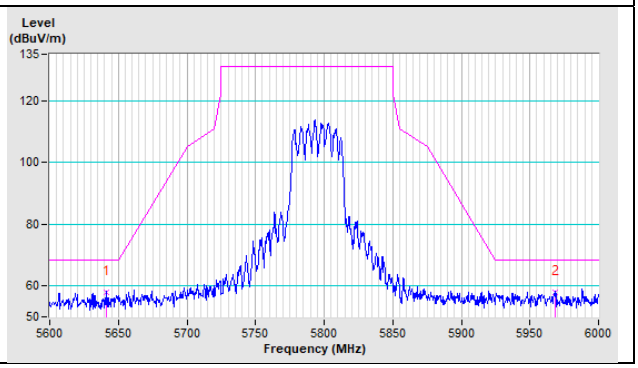
802.11a

CH 149 5745 MHz	
Horizontal	Vertical
	
CH 157 5785 MHz	
Horizontal	Vertical
	
CH 165 5825 MHz	
Horizontal	Vertical
	

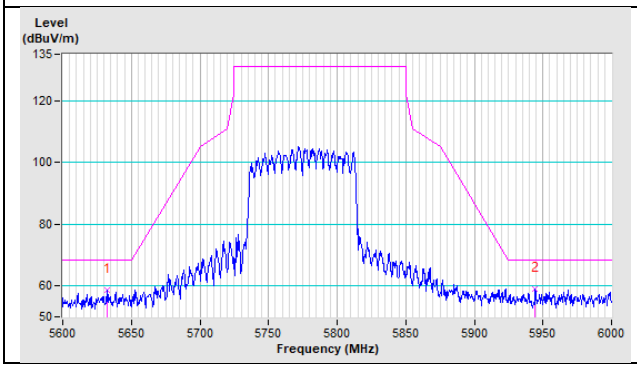
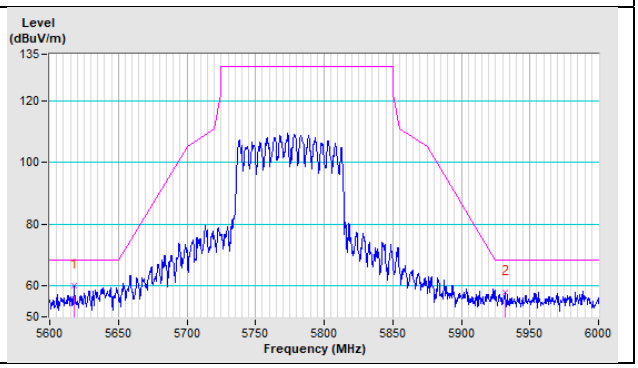
802.11ac (VHT20)

CH 149 5745 MHz	
Horizontal	Vertical
	
CH 157 5785 MHz	
Horizontal	Vertical
	
CH 165 5825 MHz	
Horizontal	Vertical
	

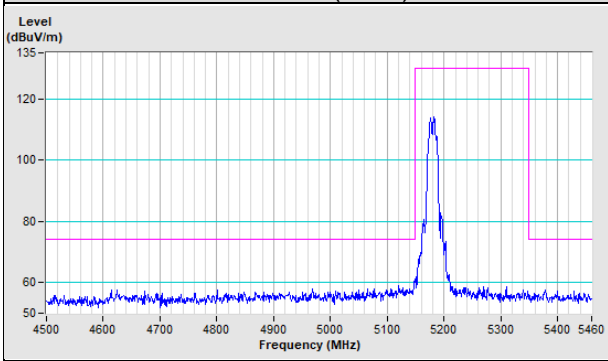
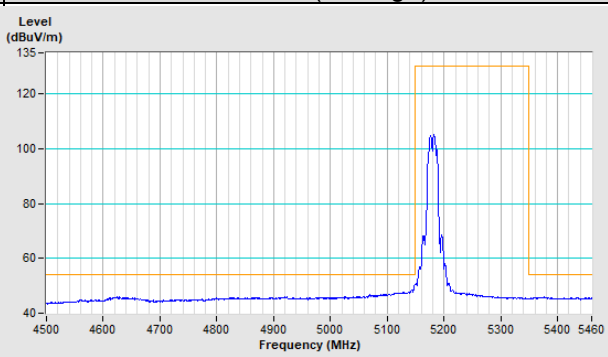
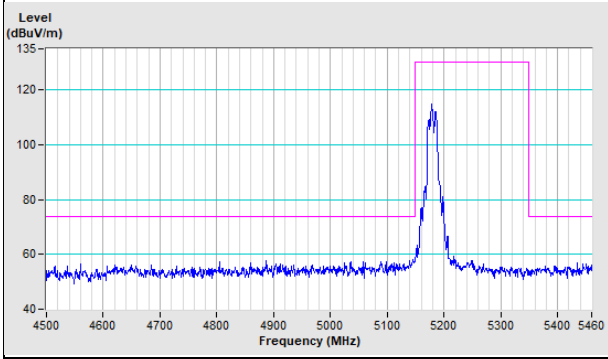
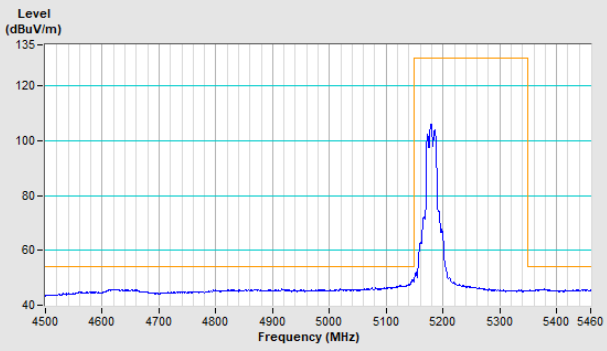
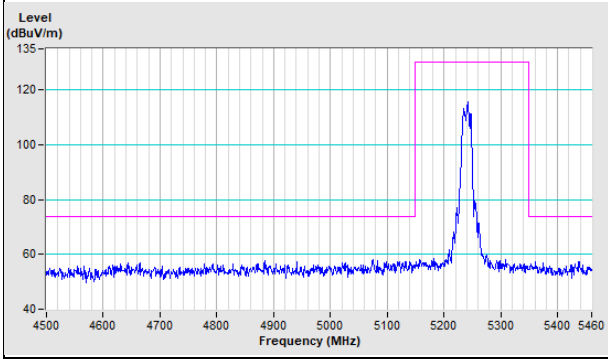
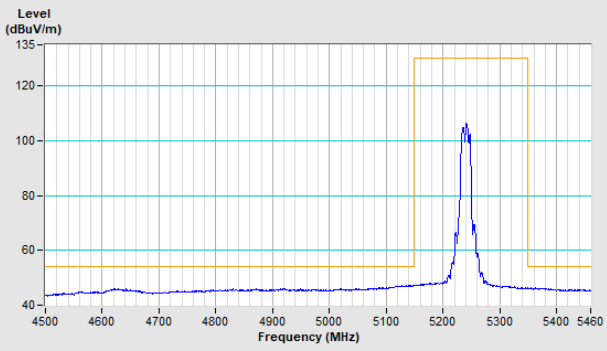
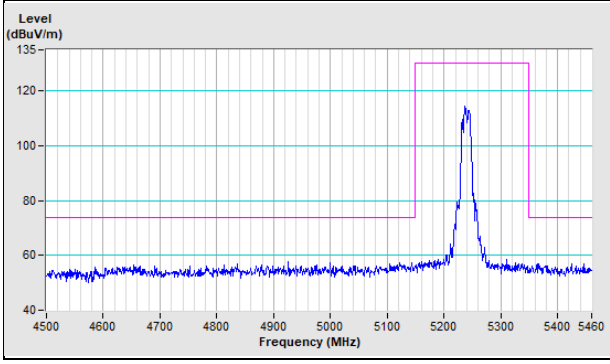
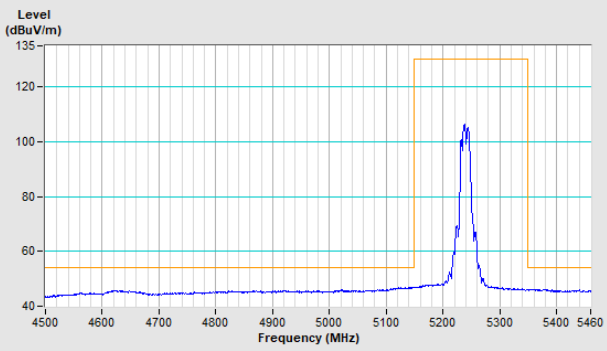
802.11ac (VHT40)

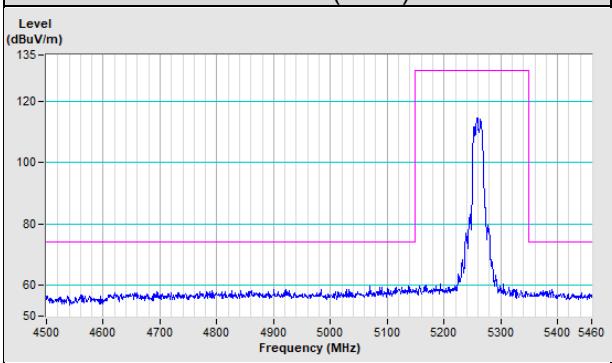
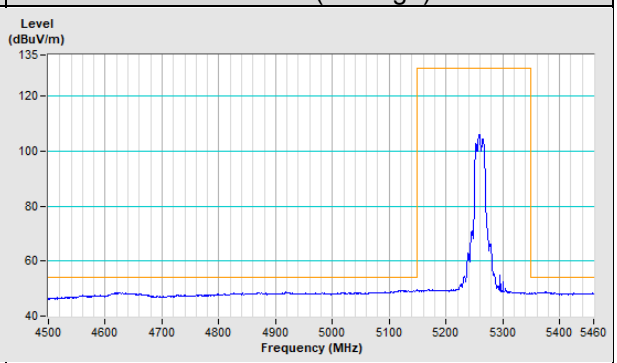
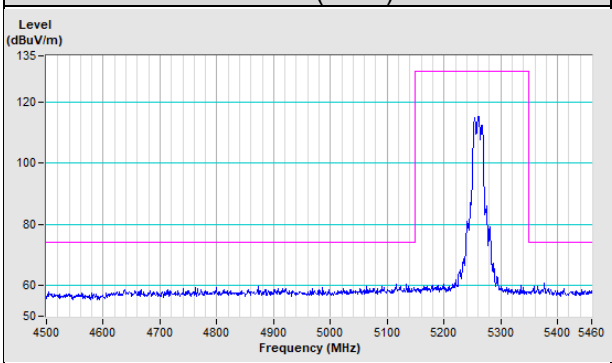
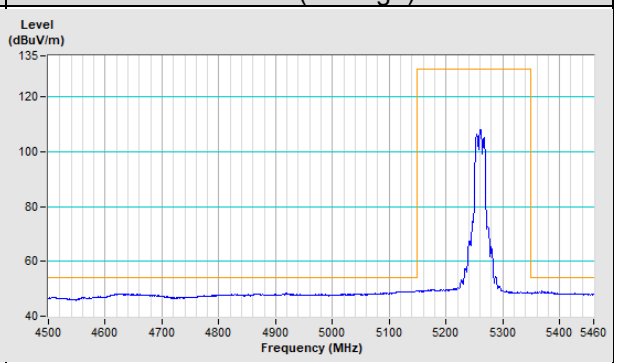
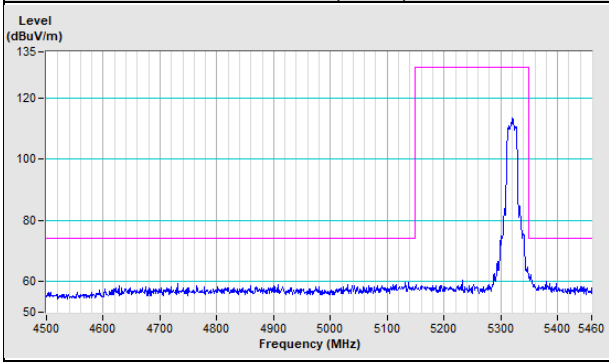
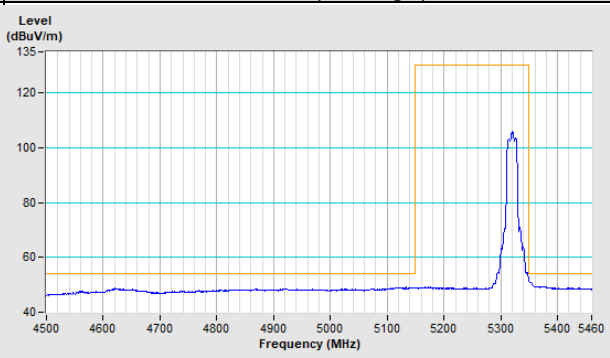
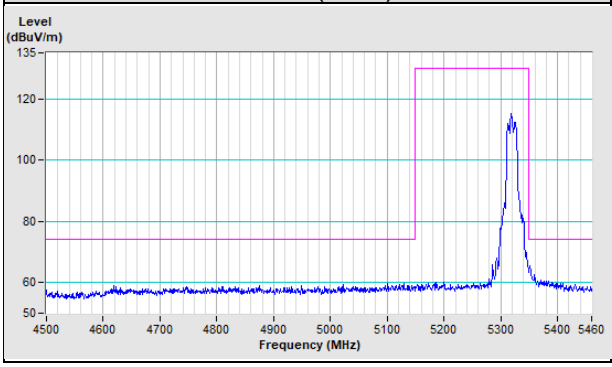
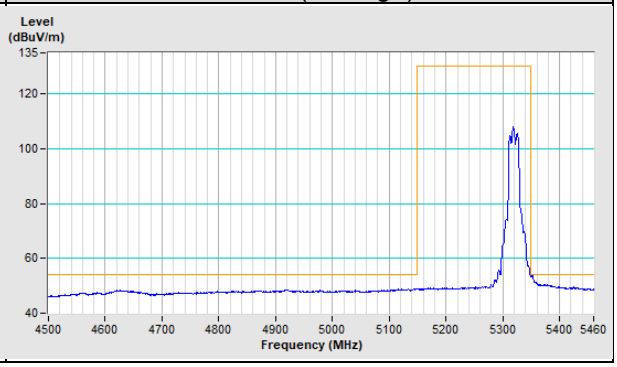
CH 151 5755 MHz	
Horizontal	Vertical
	
CH 159 5795 MHz	
Horizontal	Vertical
	

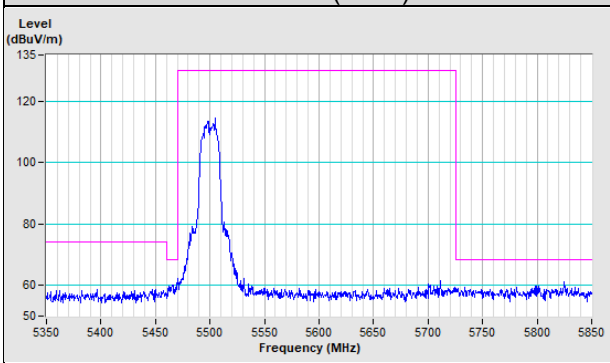
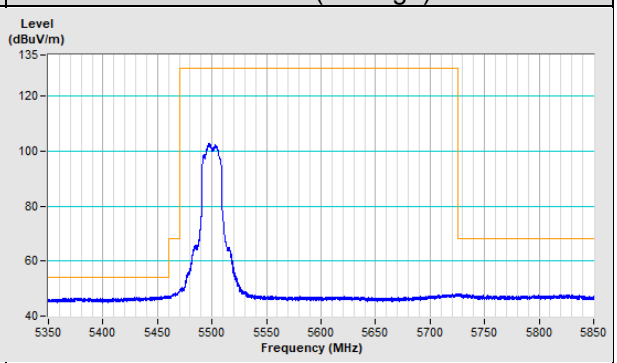
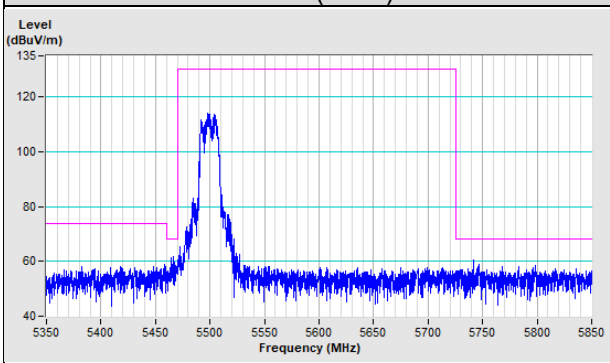
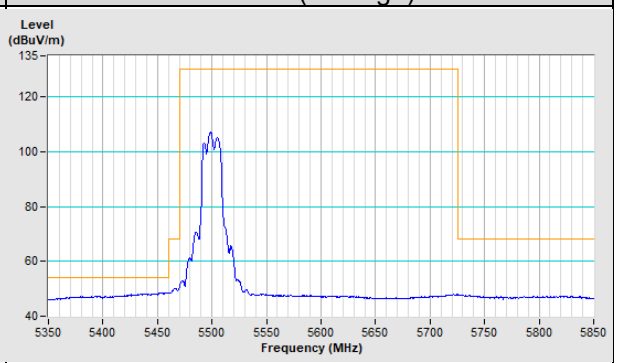
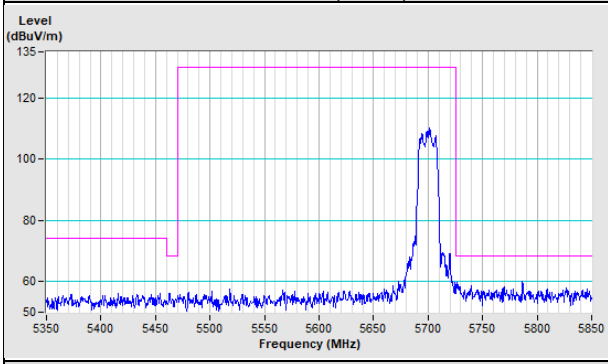
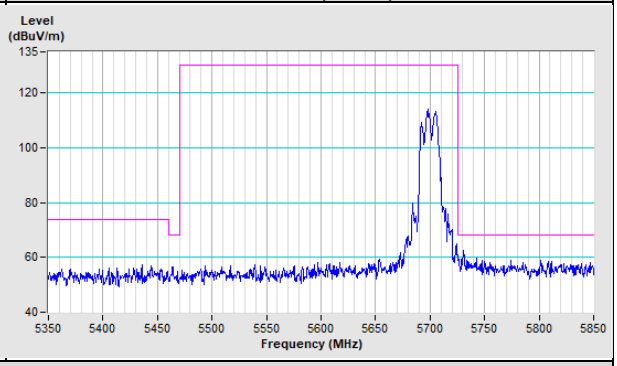
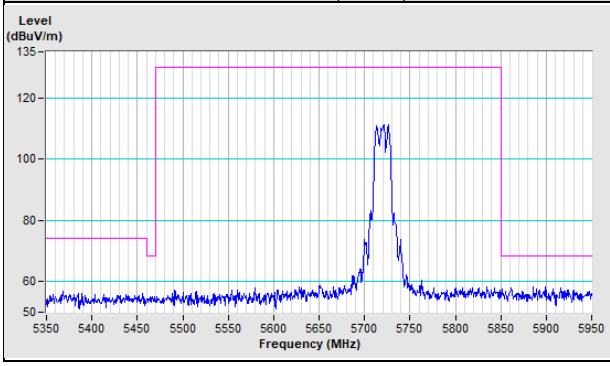
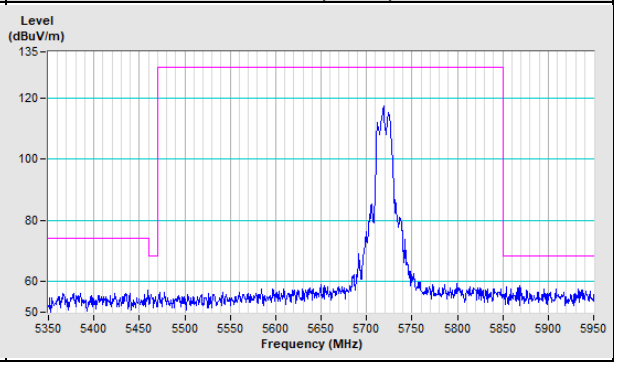
802.11ac (VHT80)

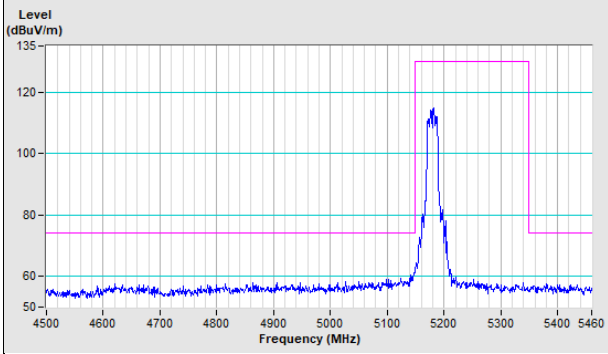
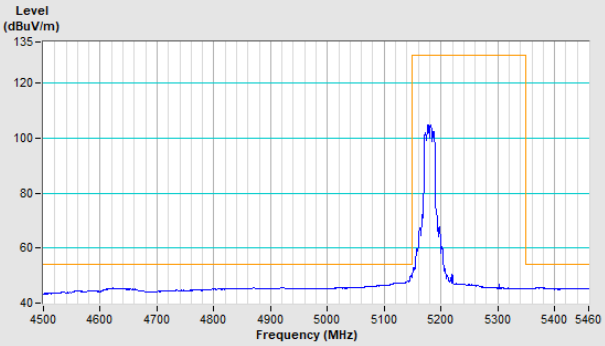
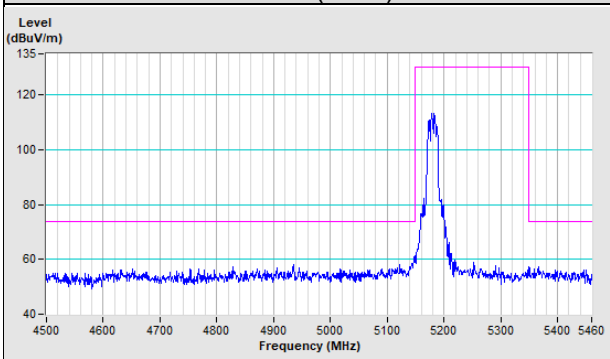
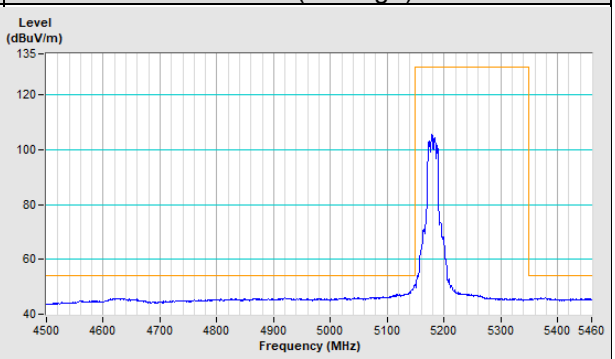
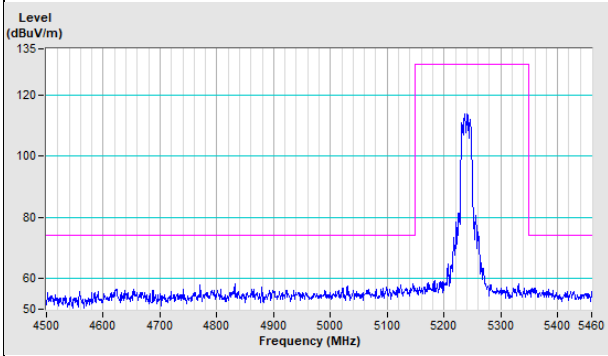
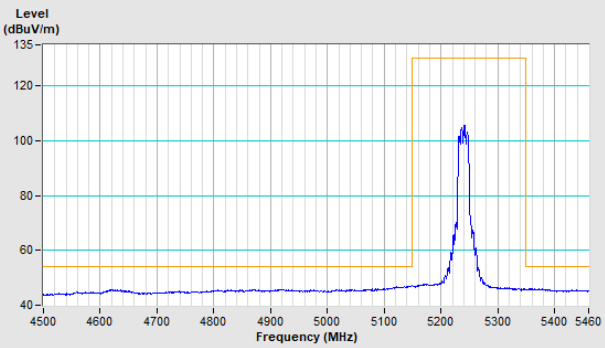
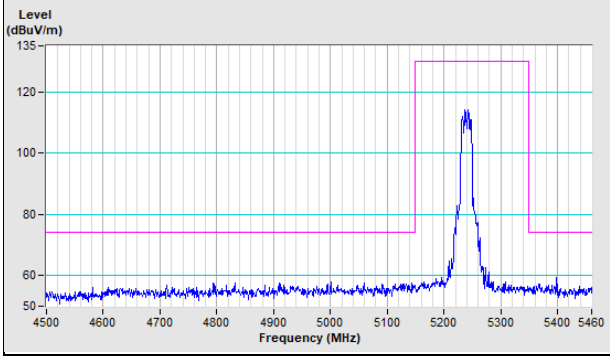
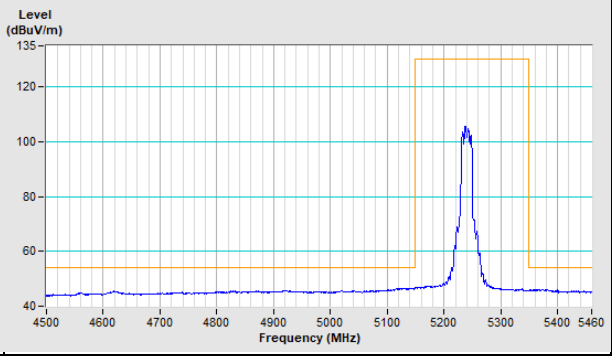
CH 155 5775 MHz	
Horizontal	Vertical
	

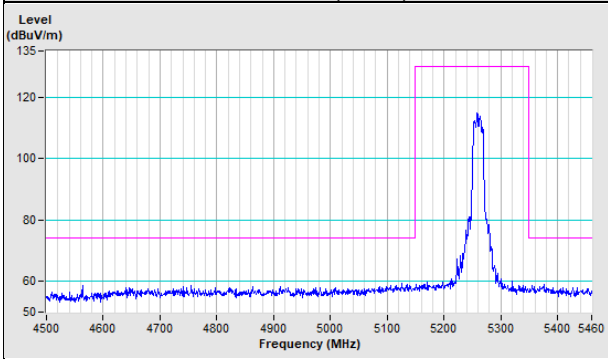
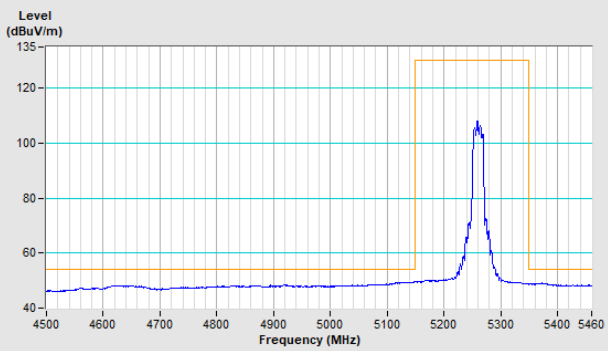
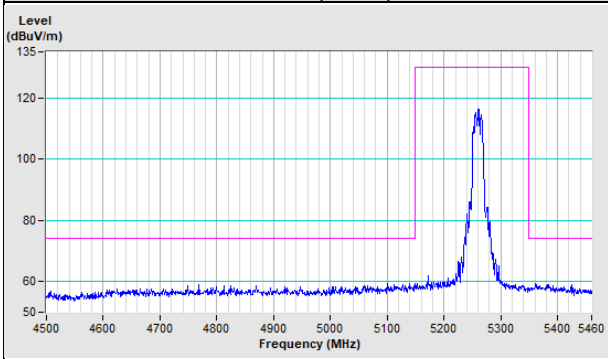
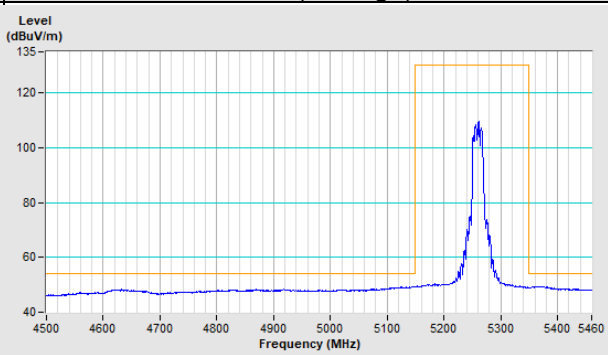
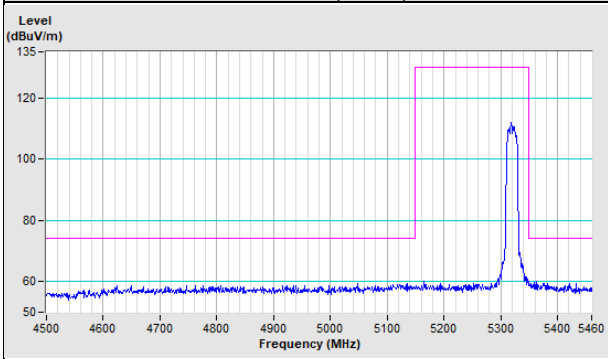
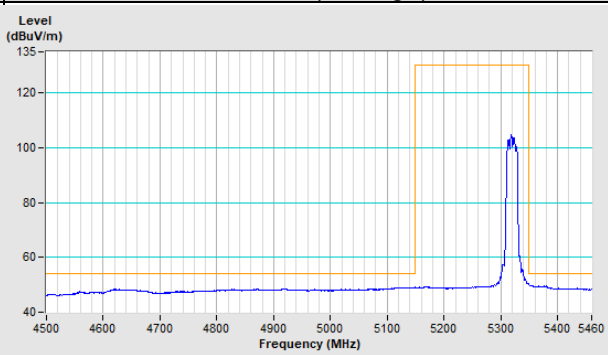
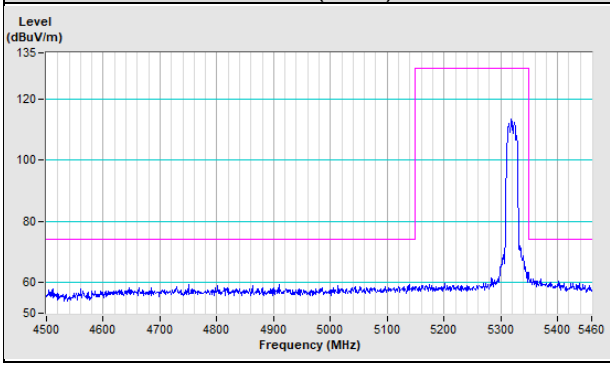
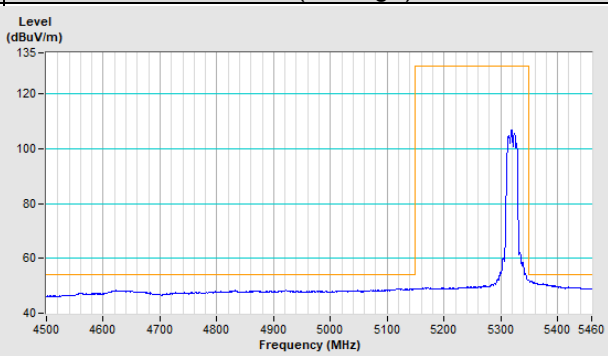
Annex B- Band Edge Measurement

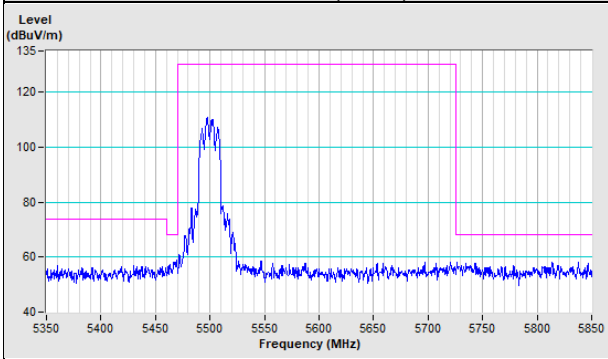
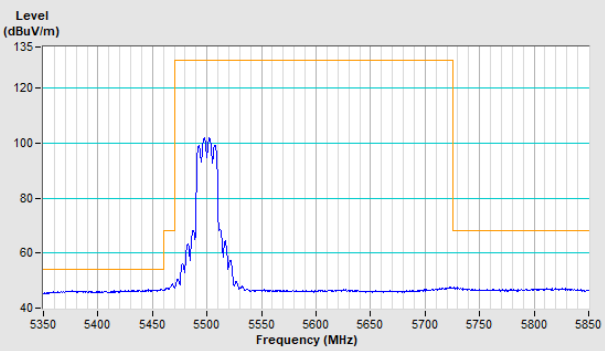
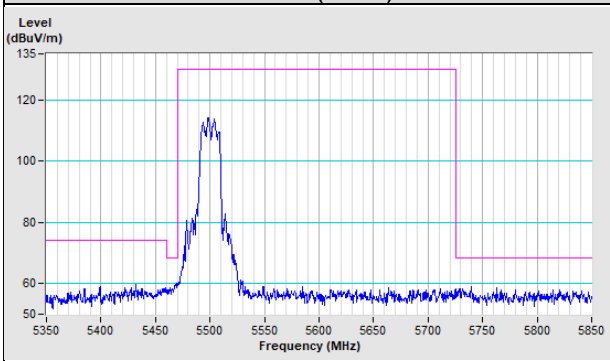
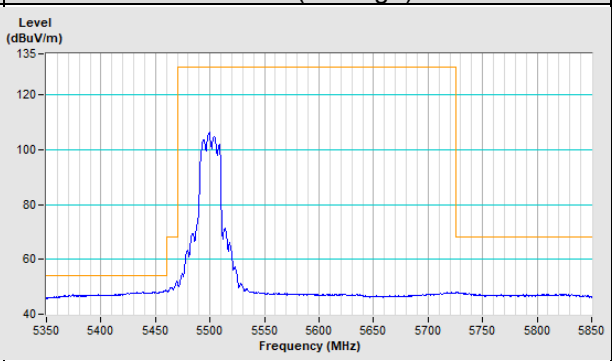
802.11a Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 48	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

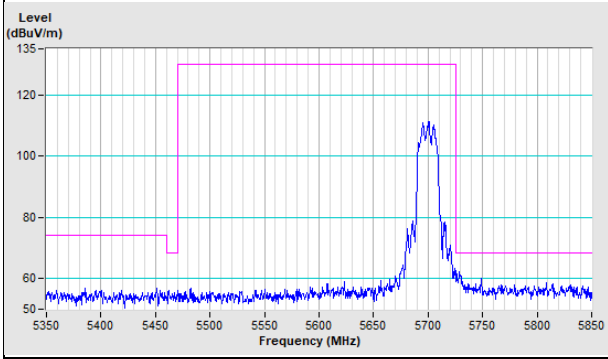
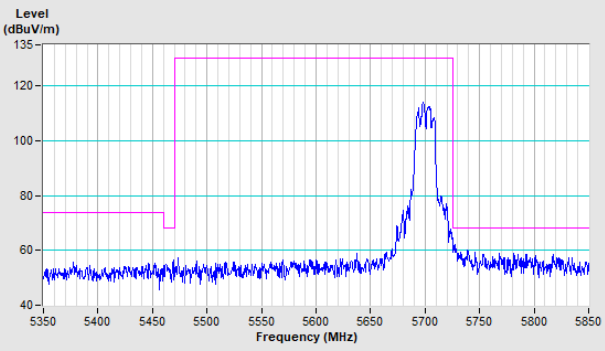
802.11a Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

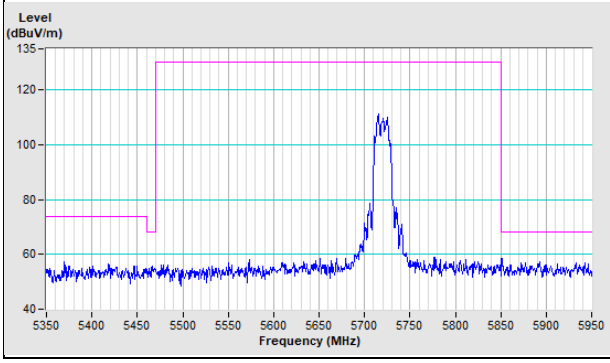
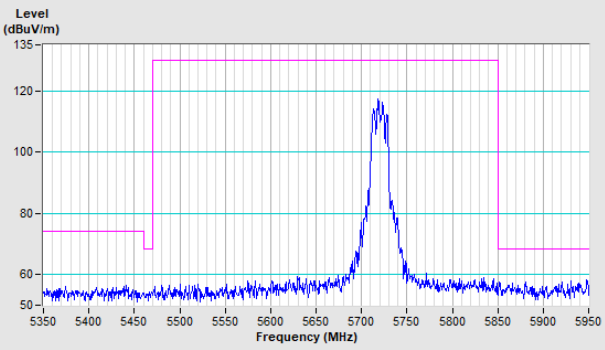
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11a Channel 140	
Horizontal (Peak)	Vertical (Peak)
	
802.11a Channel 144	
Horizontal (Peak)	Vertical (Peak)
	

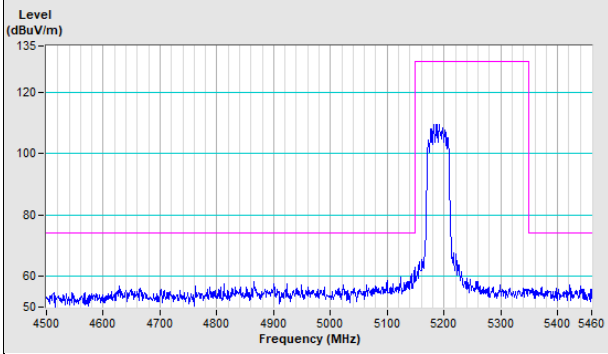
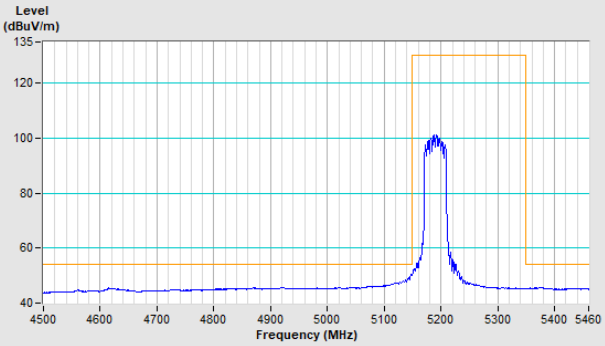
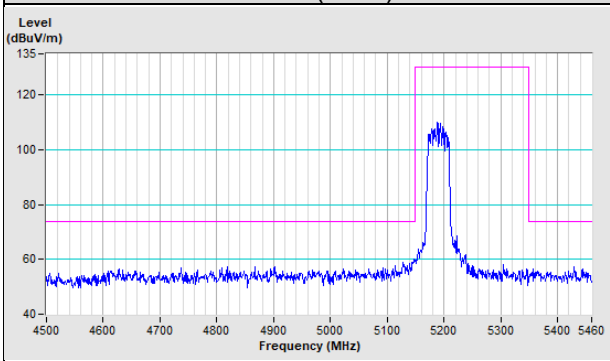
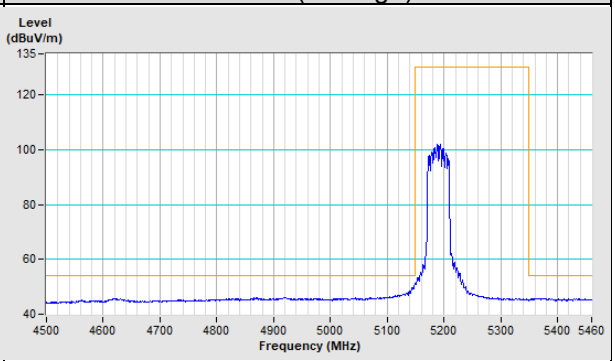
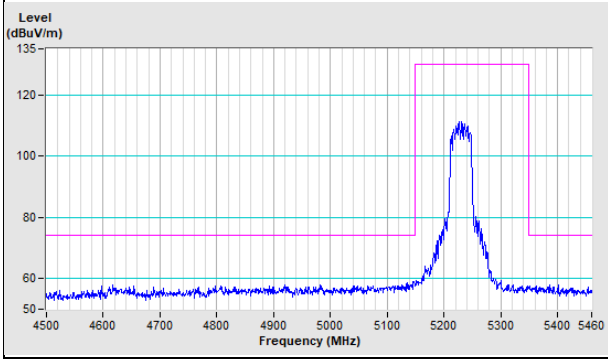
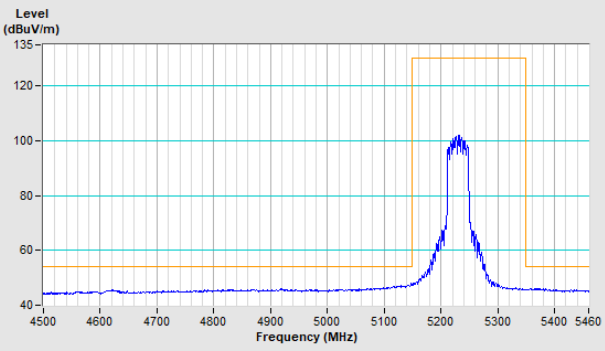
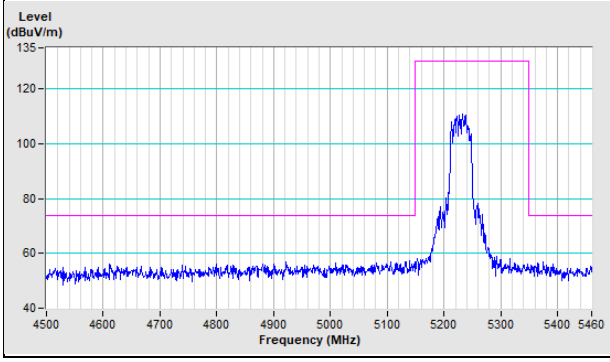
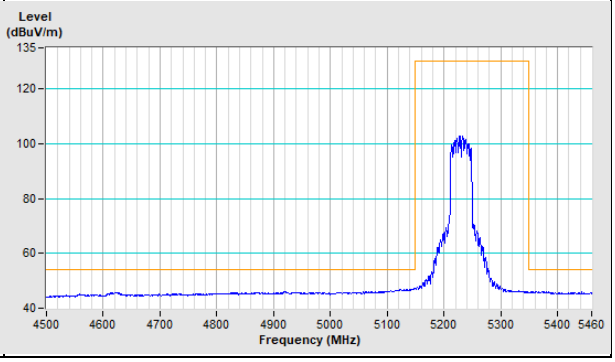
802.11ac (VHT20) Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT20) Channel 48	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

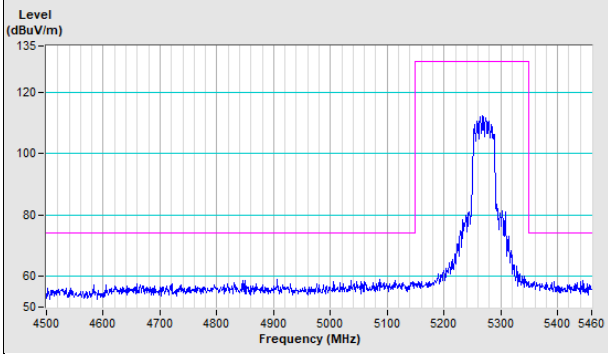
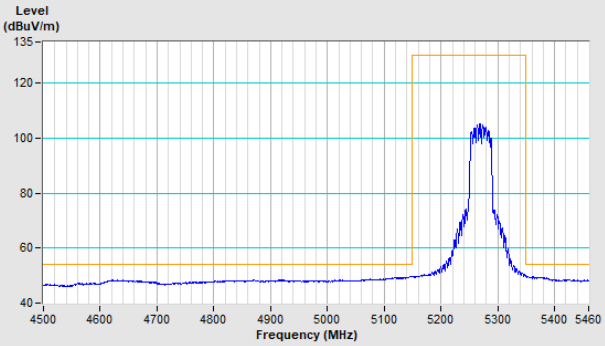
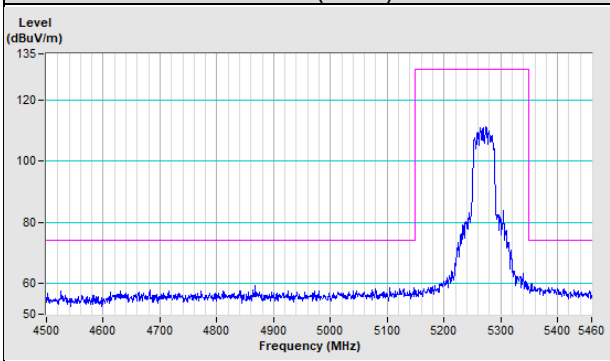
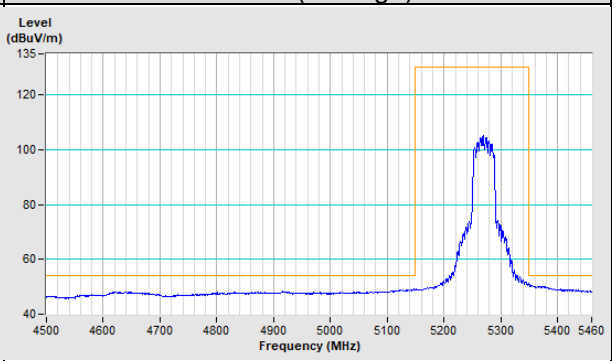
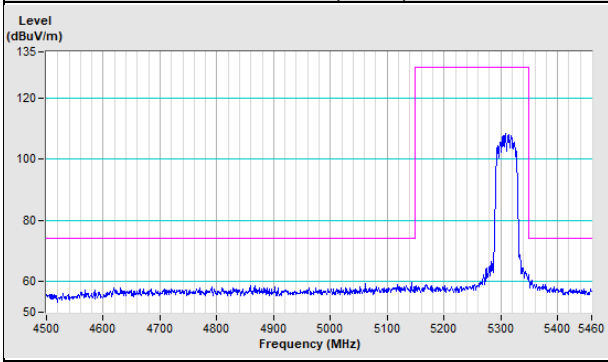
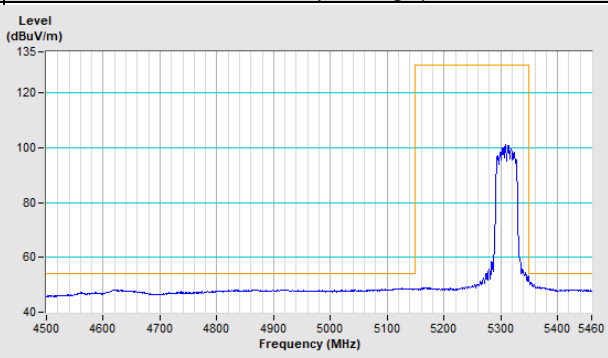
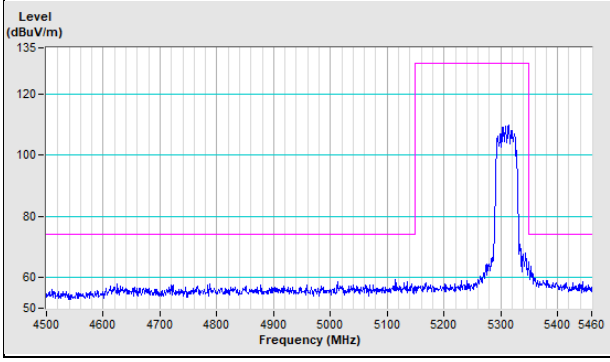
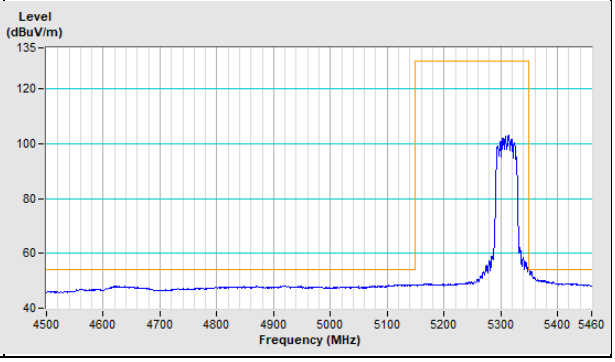
802.11ac (VHT20) Channel 52	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT20) Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

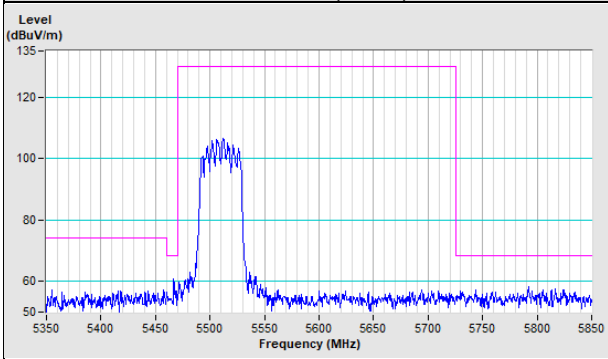
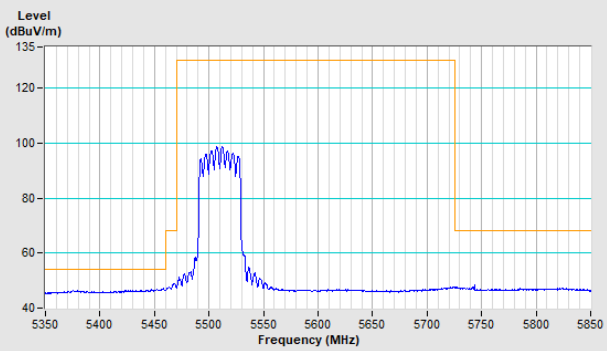
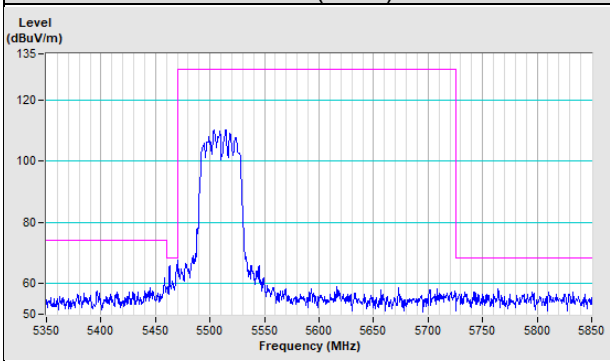
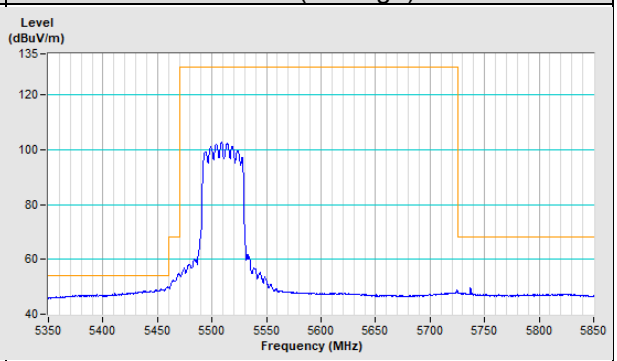
802.11ac (VHT20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

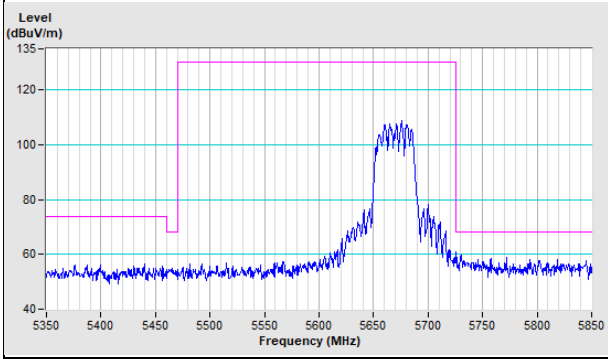
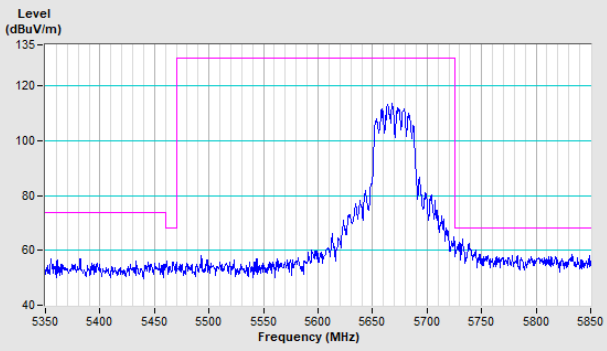
802.11ac (VHT20) Channel 140	
Horizontal (Peak)	Vertical (Peak)
	

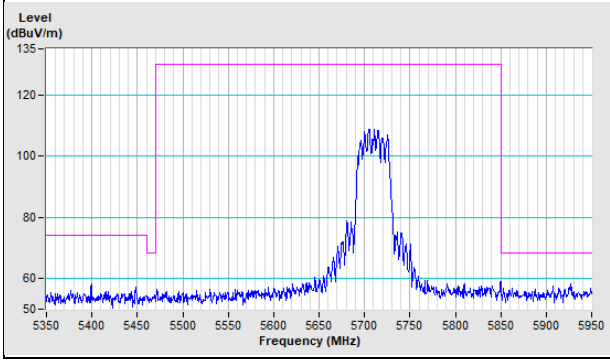
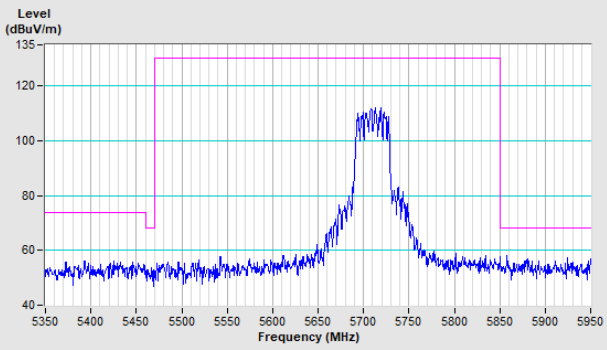
802.11ac (VHT20) Channel 144	
Horizontal (Peak)	Vertical (Peak)
	

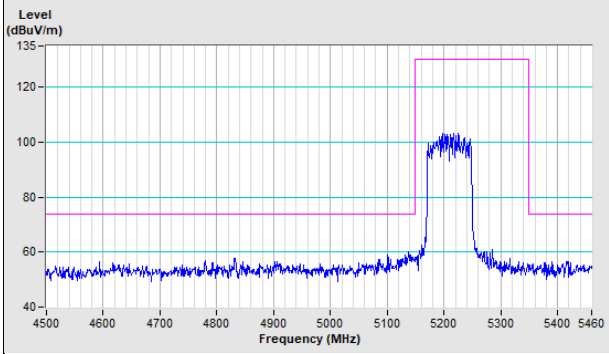
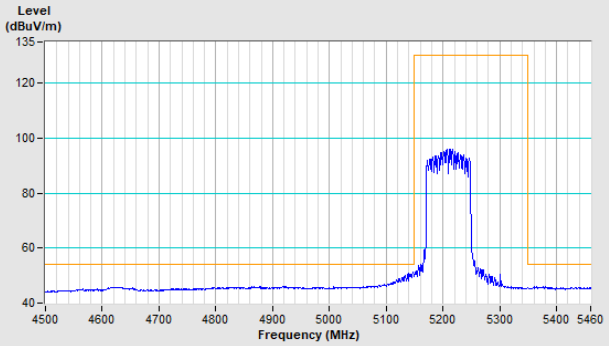
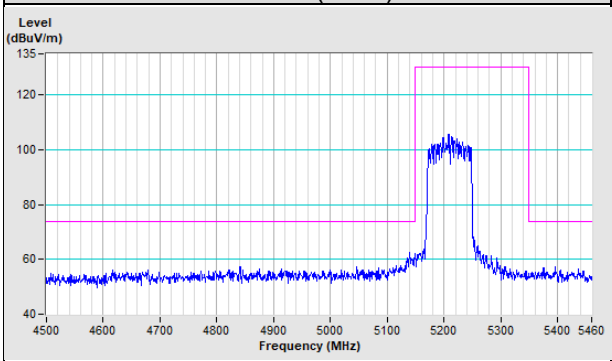
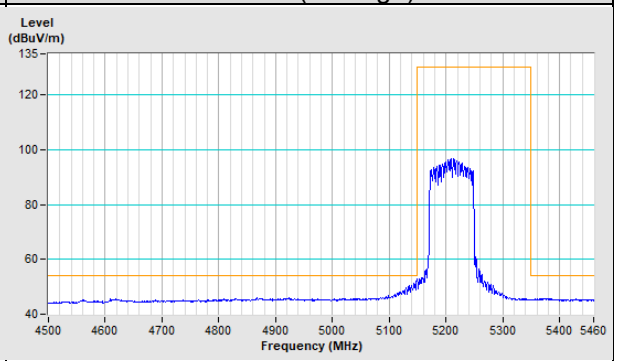
802.11ac (VHT40) Channel 38	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT40) Channel 46	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

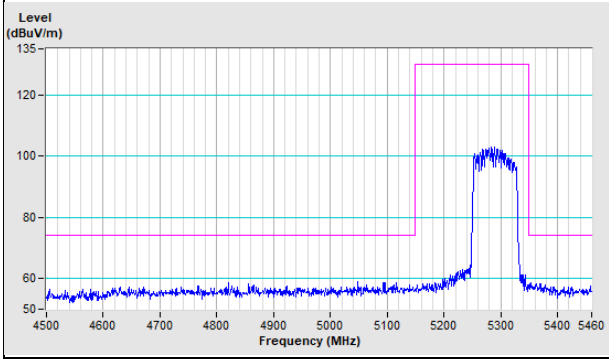
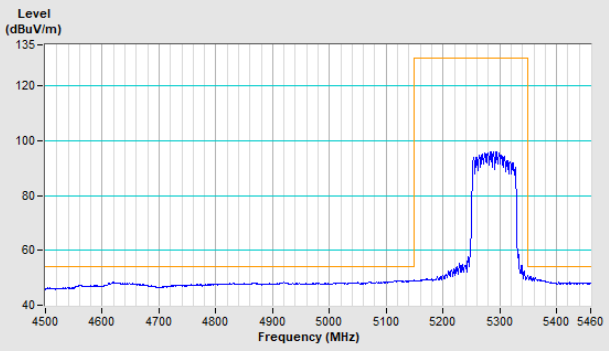
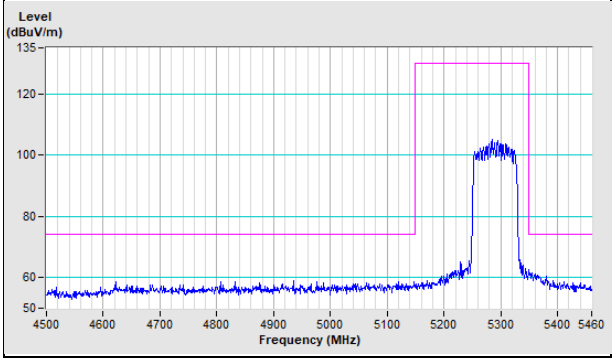
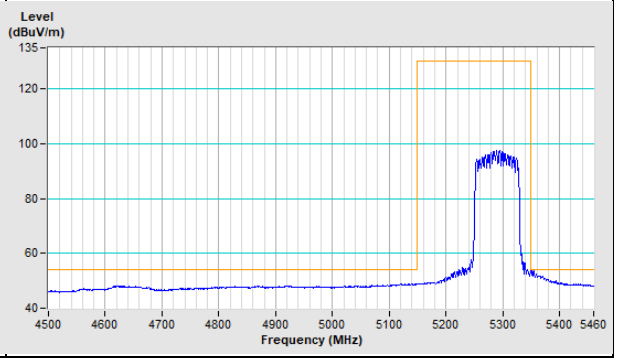
802.11ac (VHT40) Channel 54	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT40) Channel 62	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

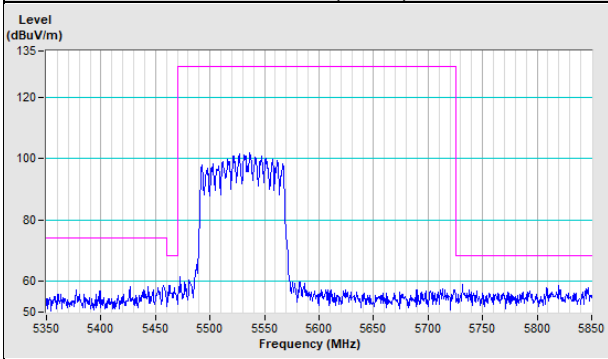
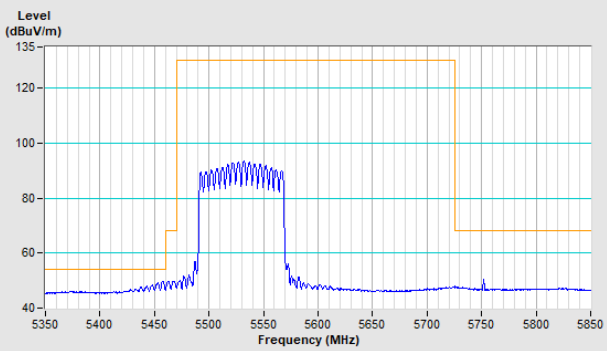
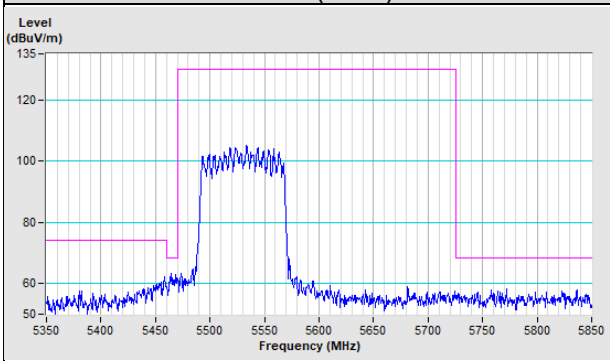
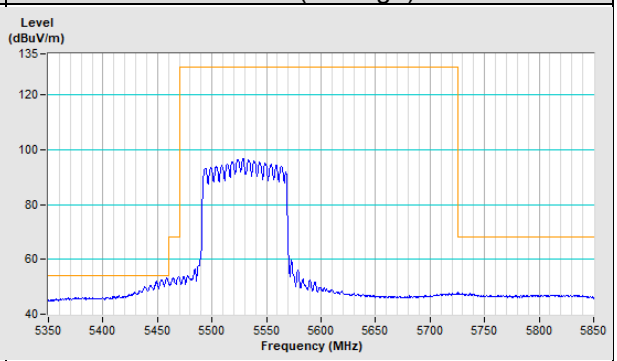
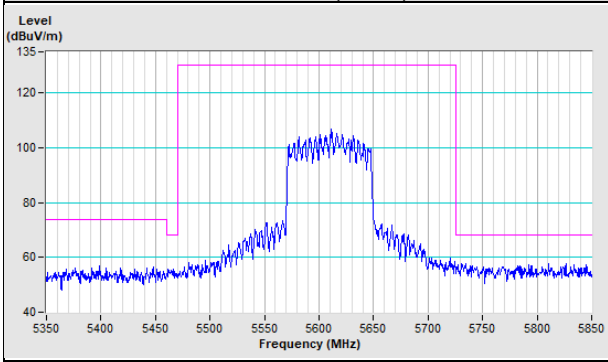
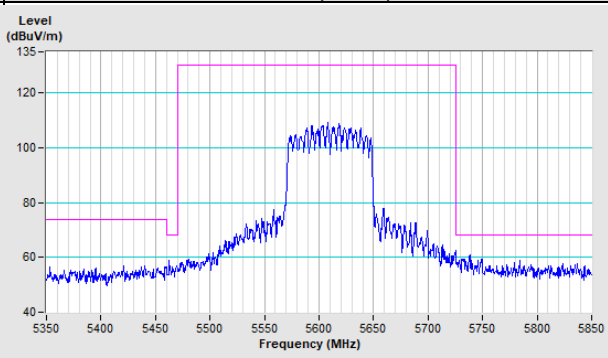
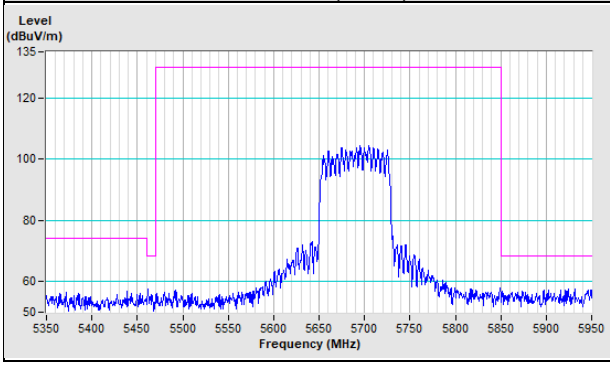
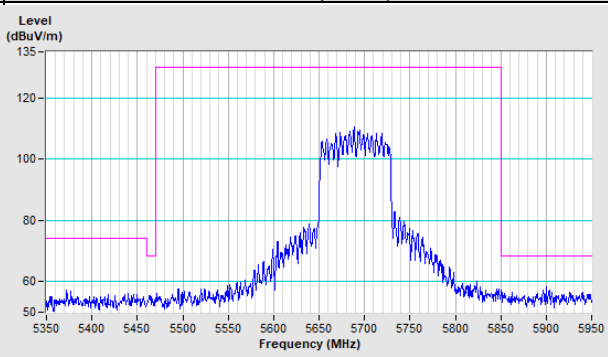
802.11ac (VHT40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ac (VHT40) Channel 134	
Horizontal (Peak)	Vertical (Peak)
	

802.11ac (VHT40) Channel 142	
Horizontal (Peak)	Vertical (Peak)
	

802.11ac (VHT80) Channel 42	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ac (VHT80) Channel 58	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ac (VHT80) Channel 106	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ac (VHT80) Channel 122	
Horizontal (Peak)	Vertical (Peak)
	
802.11ac (VHT80) Channel 138	
Horizontal (Peak)	Vertical (Peak)
	

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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